

卷之三

DRAFT

EBSI-1-15616

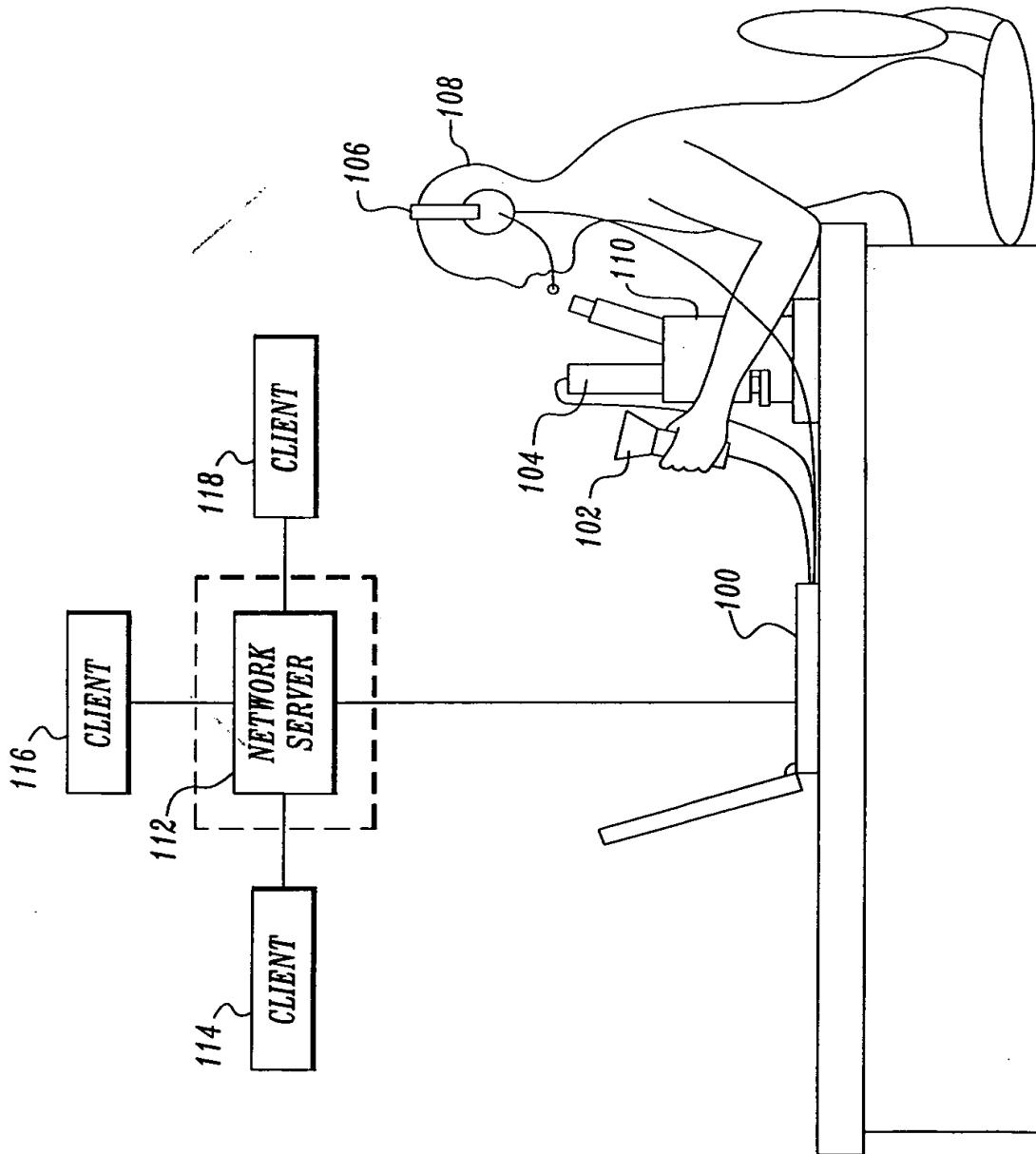


Fig. 1

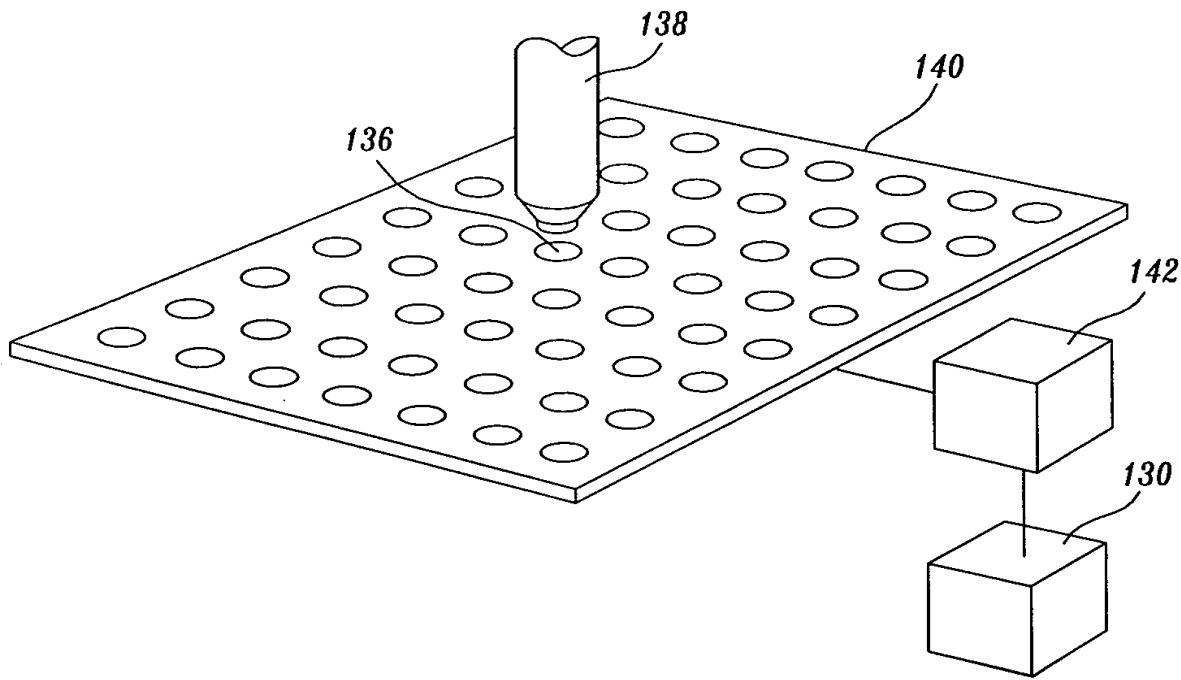


Fig. 1A.

204

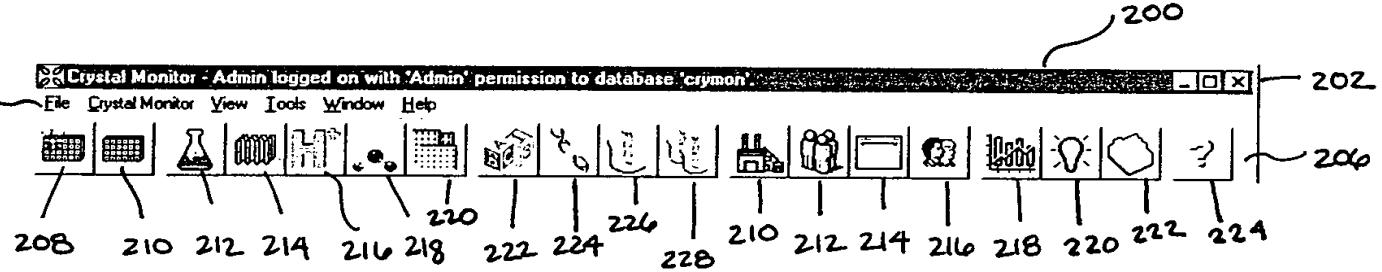
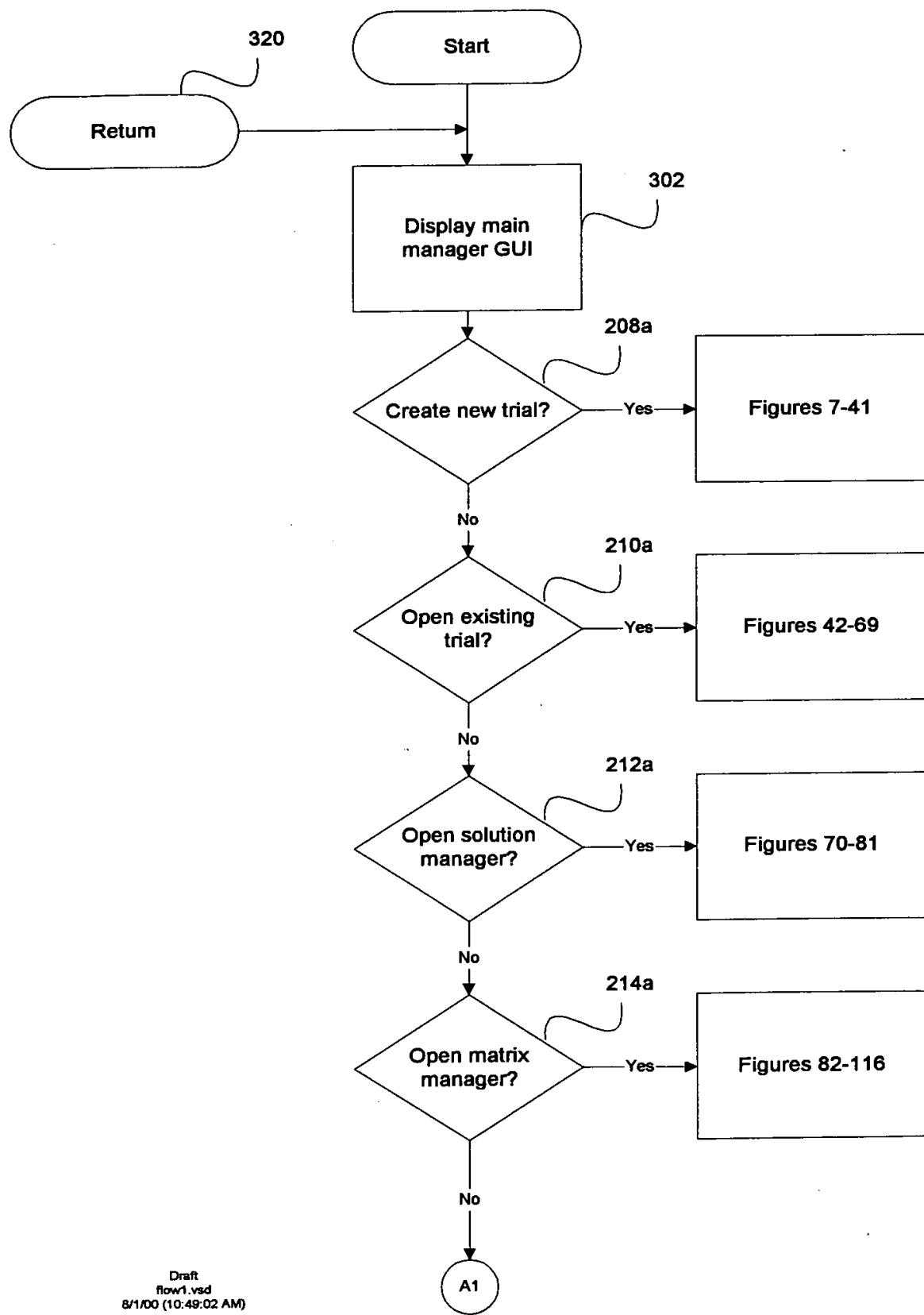


Fig. 2



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flow1.vsd
8/1/00 (10:49:02 AM)

FIGURE 3

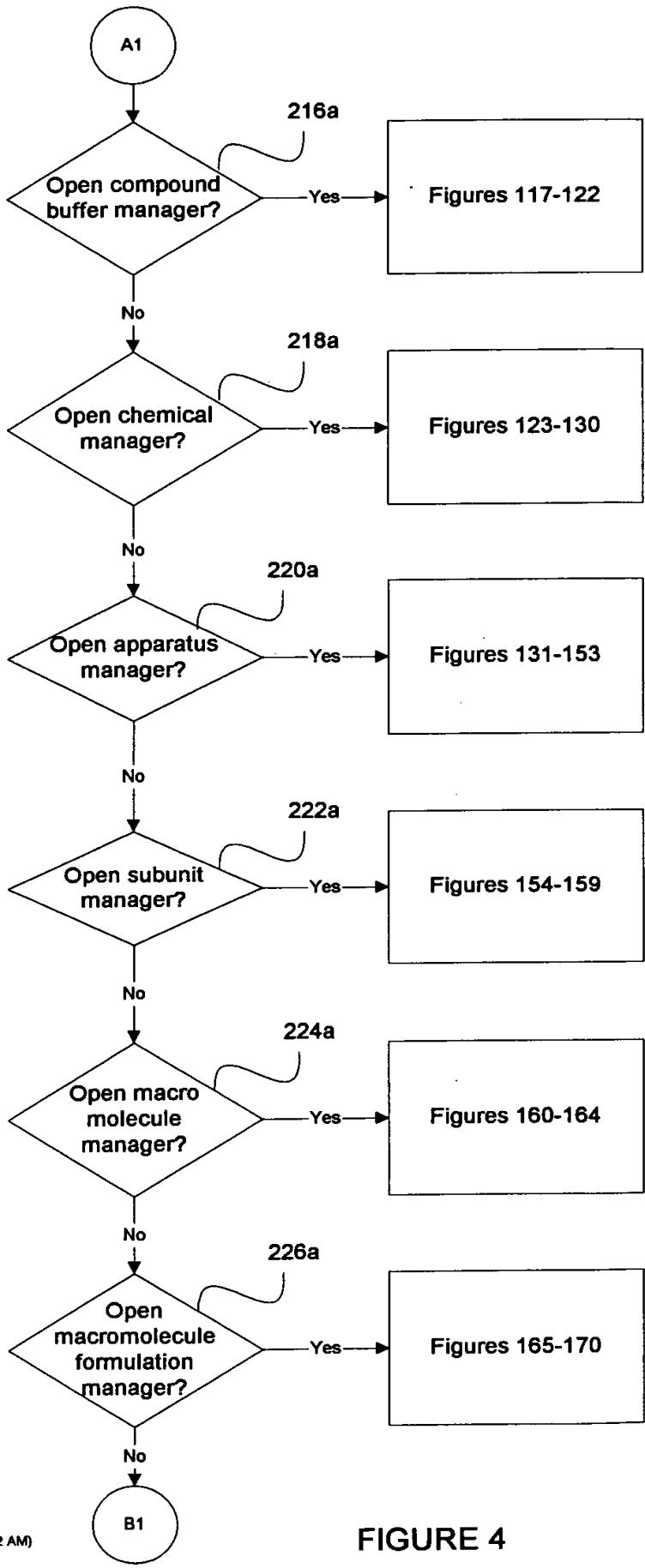


FIGURE 4

00000000000000000000000000000000

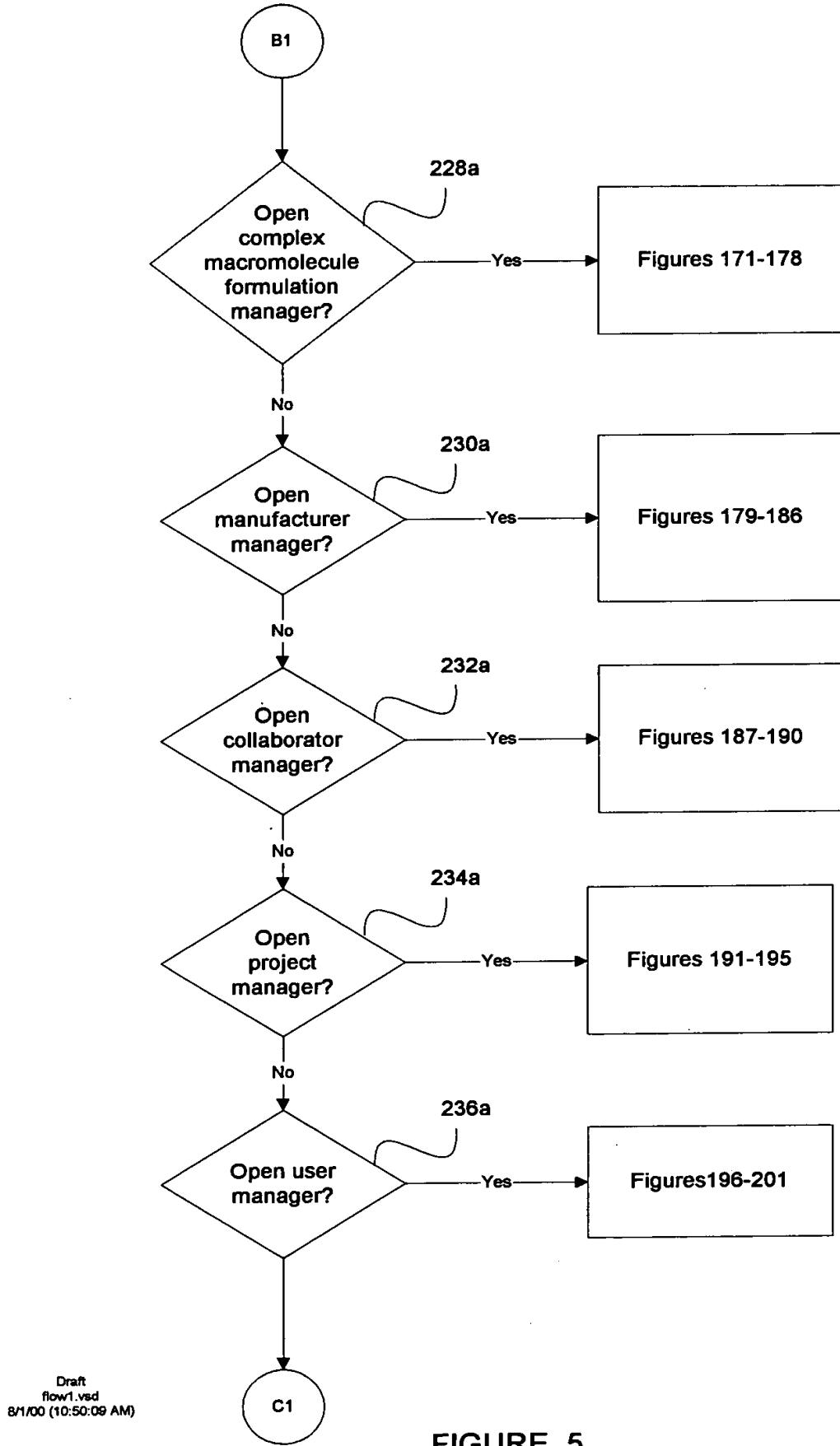
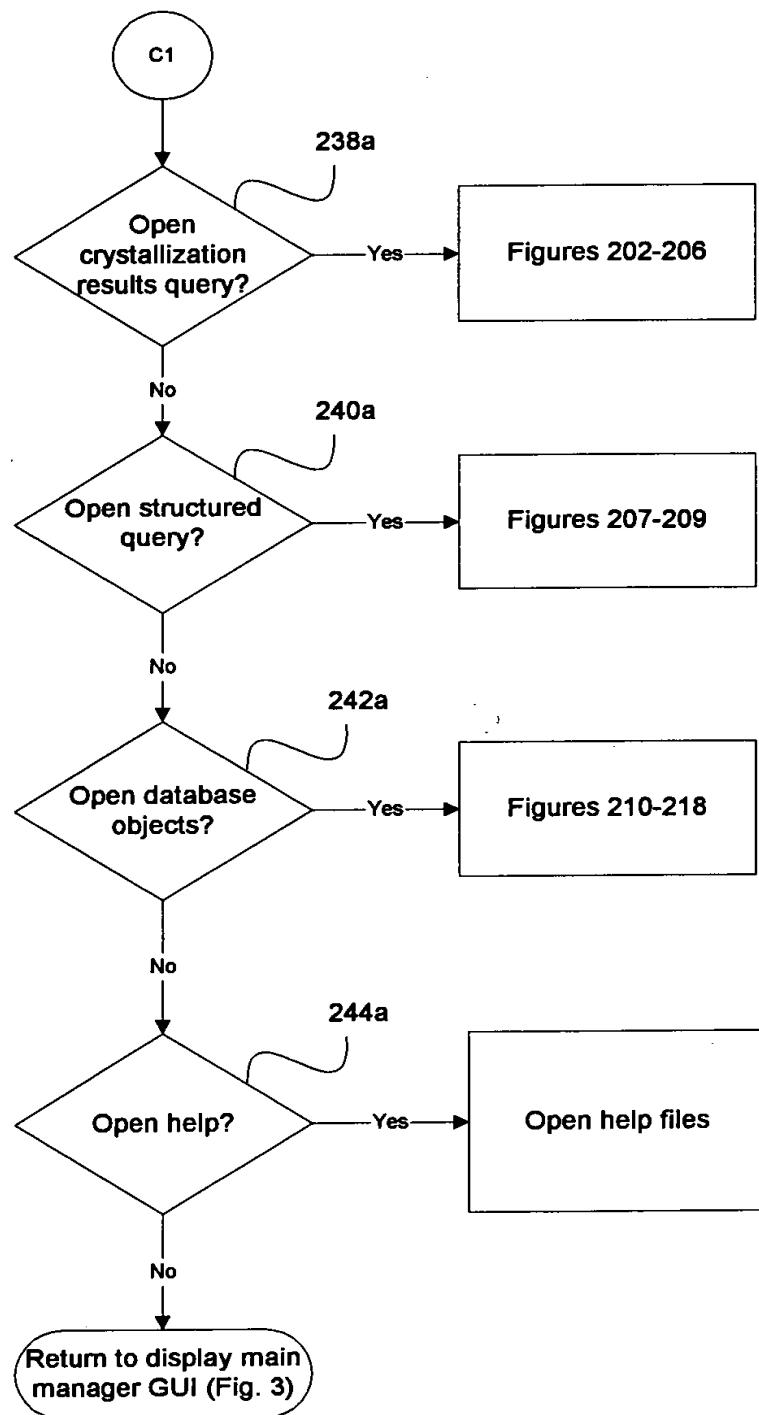


FIGURE 5

00000000000000000000



000000000000000000000000

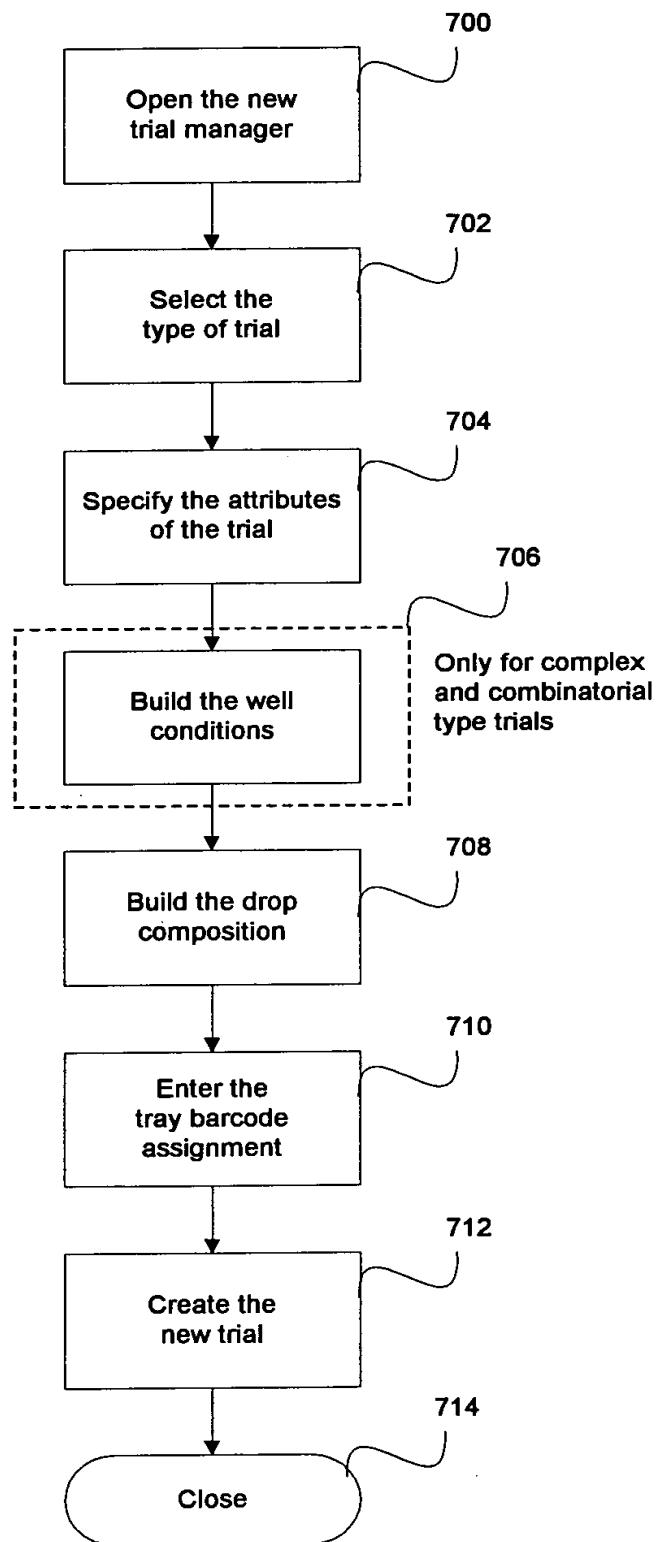
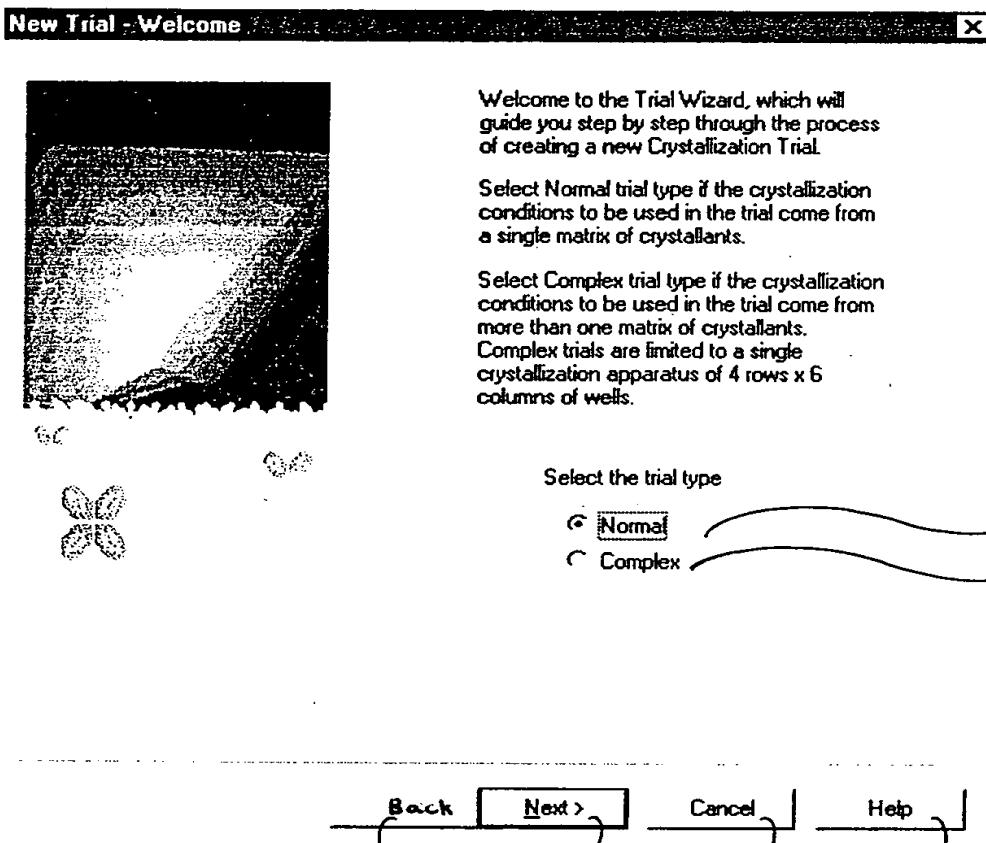


FIGURE 7

09091000 - 080200



806

808

810

812

Fig. 8

000000000000000000000000

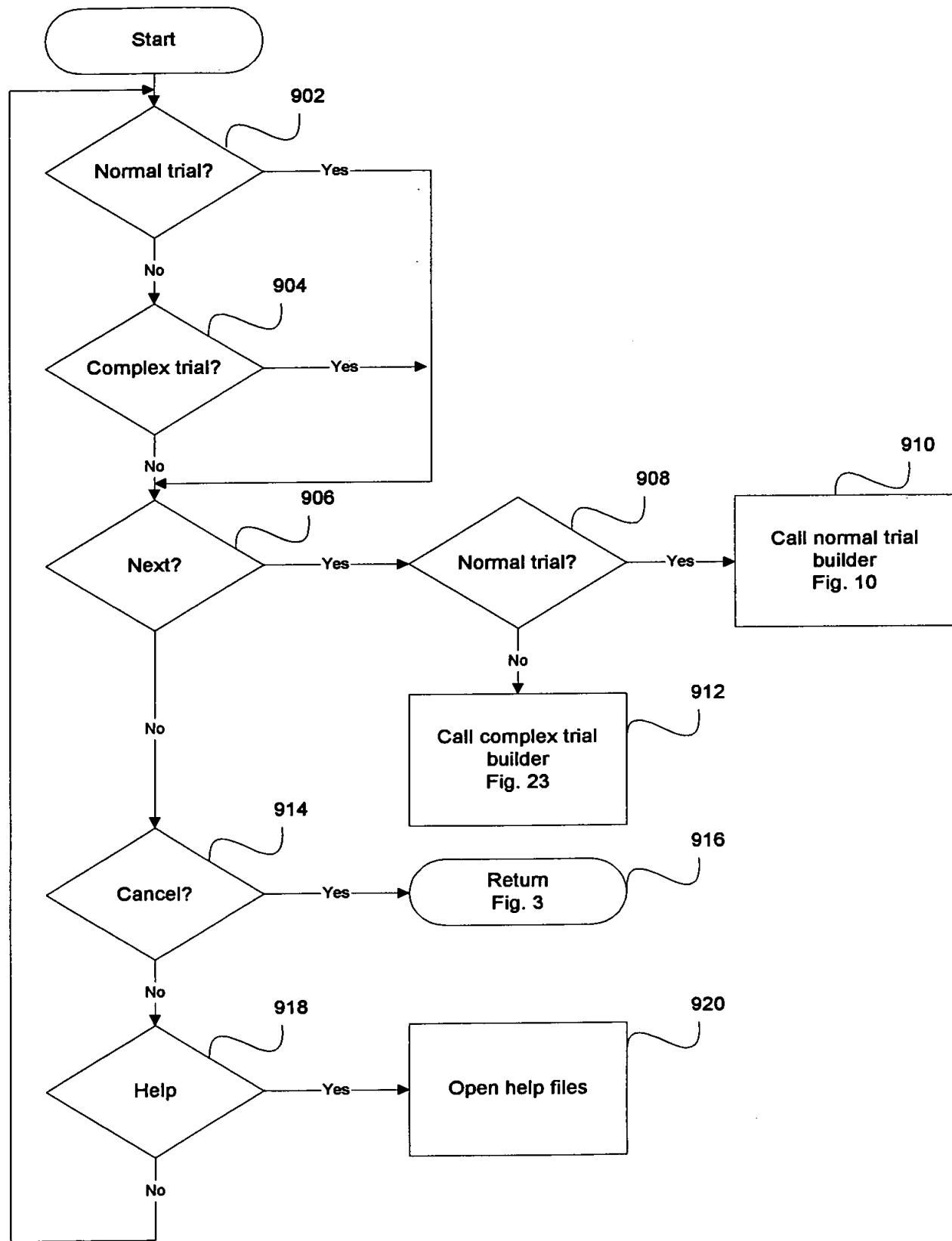


FIGURE 9

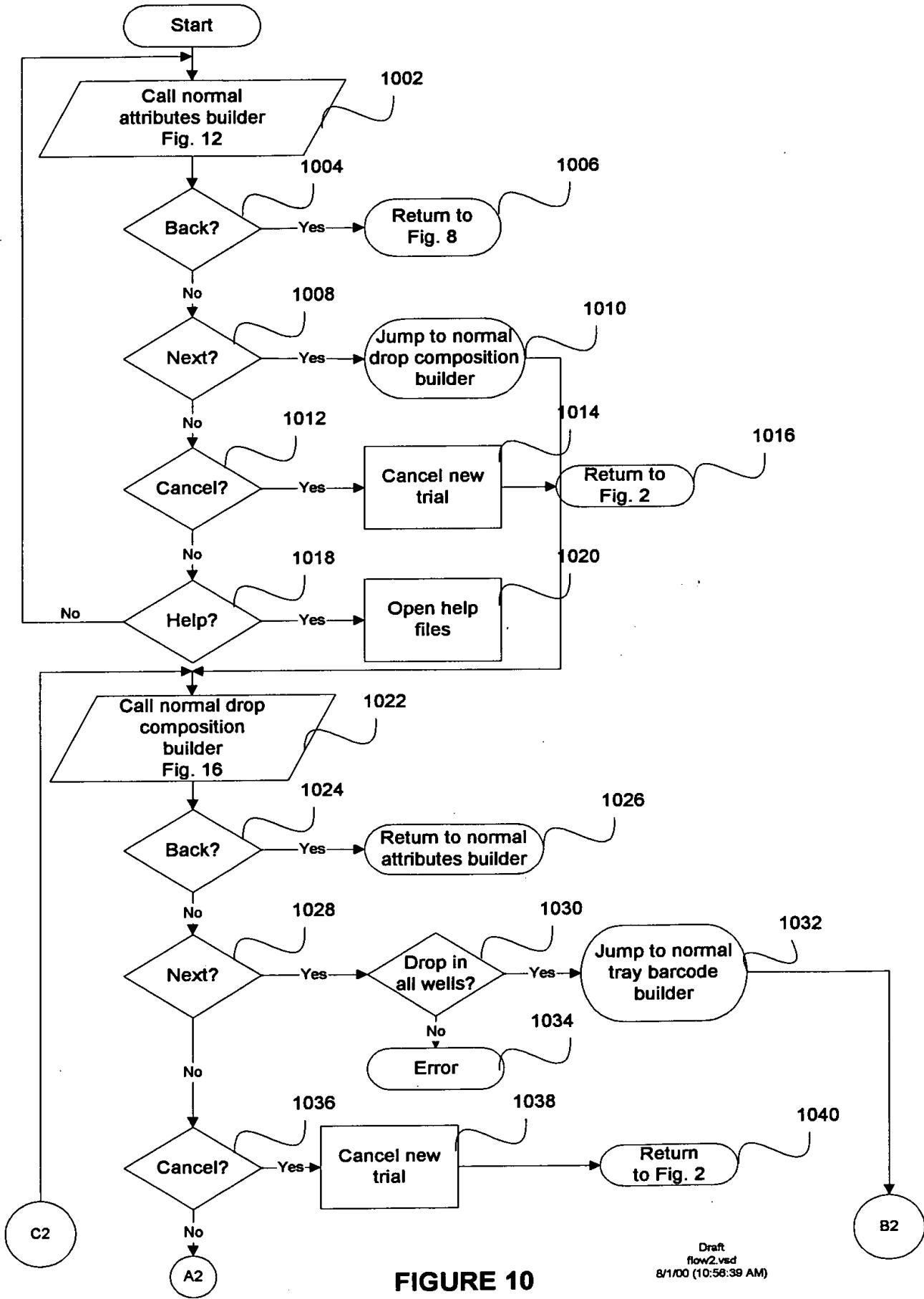


FIGURE 10

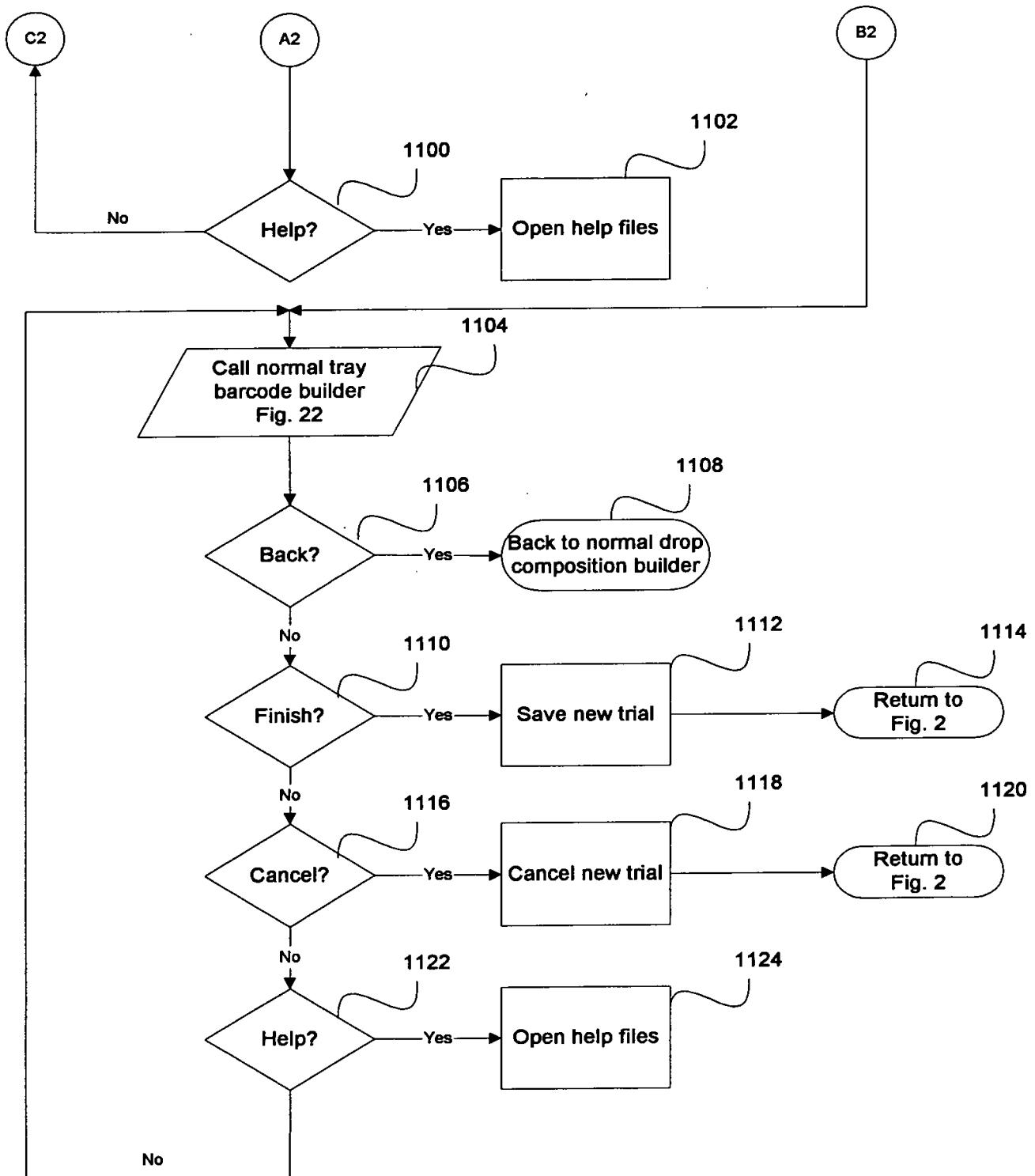


FIGURE 11

09634185 - 080200

New Trial : Specify Attributes

Project: *iiprotein* 1232

Collaborator: *Emerald BioStructures* 1228

Apparatus: *Charles Supper plate* 1210

Gas Purge: <None> 1218

Temperature: 25. C 1212

Reservoir Volume: 200. μl 1200

Prep. Date: 4/3/00 1214

1237 1216

Matrix: Wizard 1220

Oil Overlay

Oil Overlay: <None> 1222

Oil Overlay Volume: 1224

1258 1226

< Back | Next > 1228

Cancel 1230

Help 1234

Fig. 12 1236

1240 1238

1242 1244

1248 1246

1250 1252

1254 1256

1260 1262

1264 1266

1202 1204 1206 1208

0000000000000000

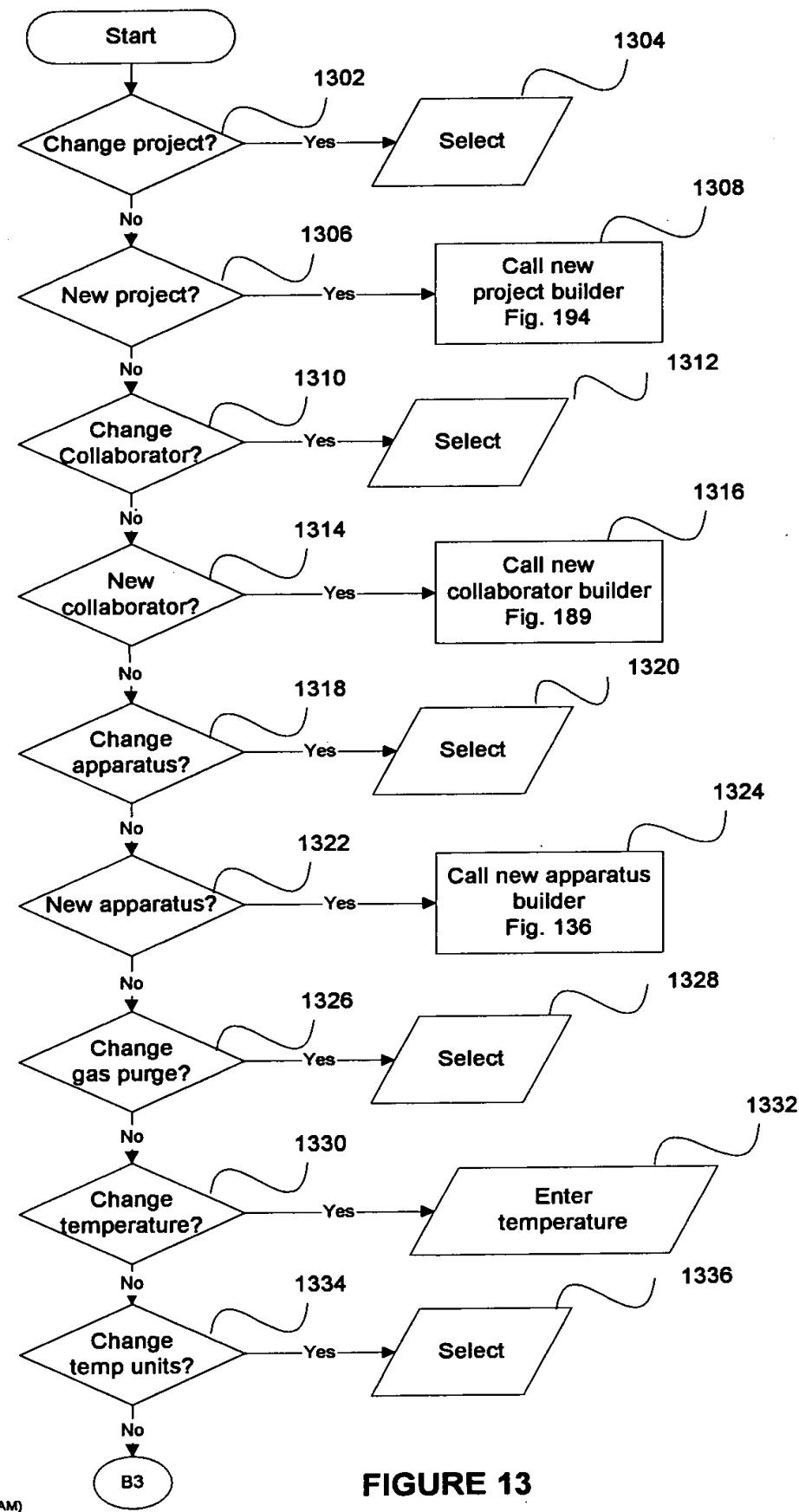


FIGURE 13

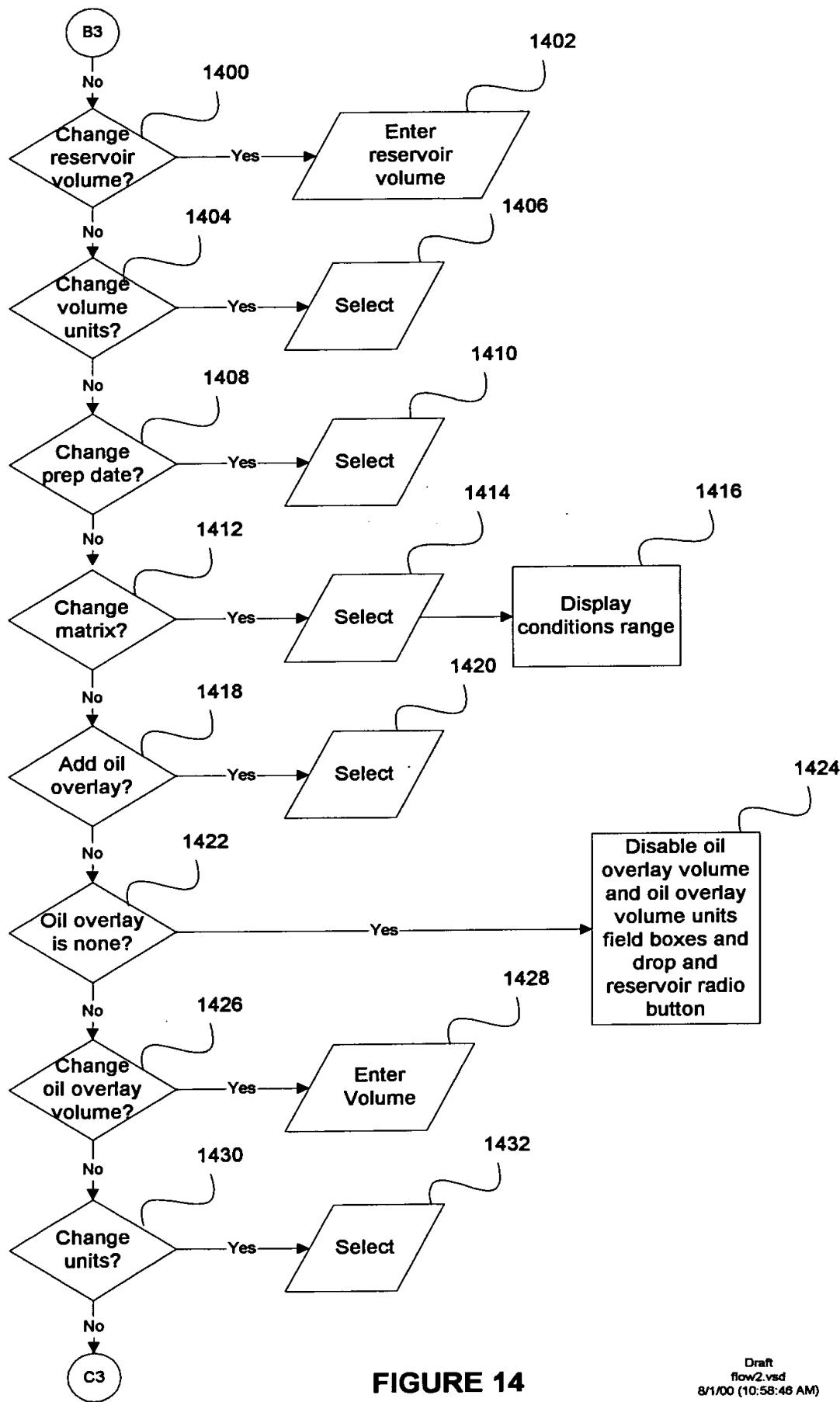


FIGURE 14

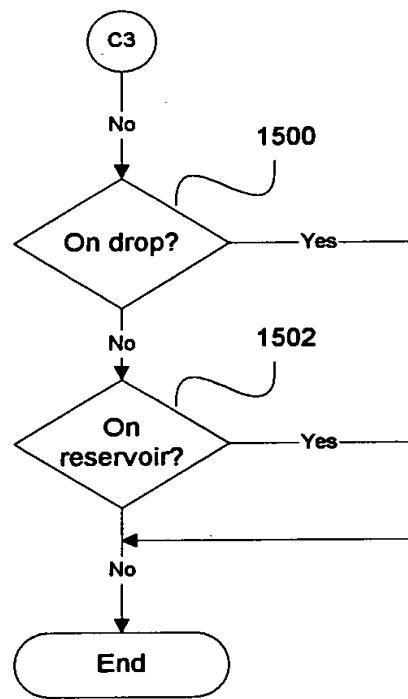


FIGURE 15

0000000000000000

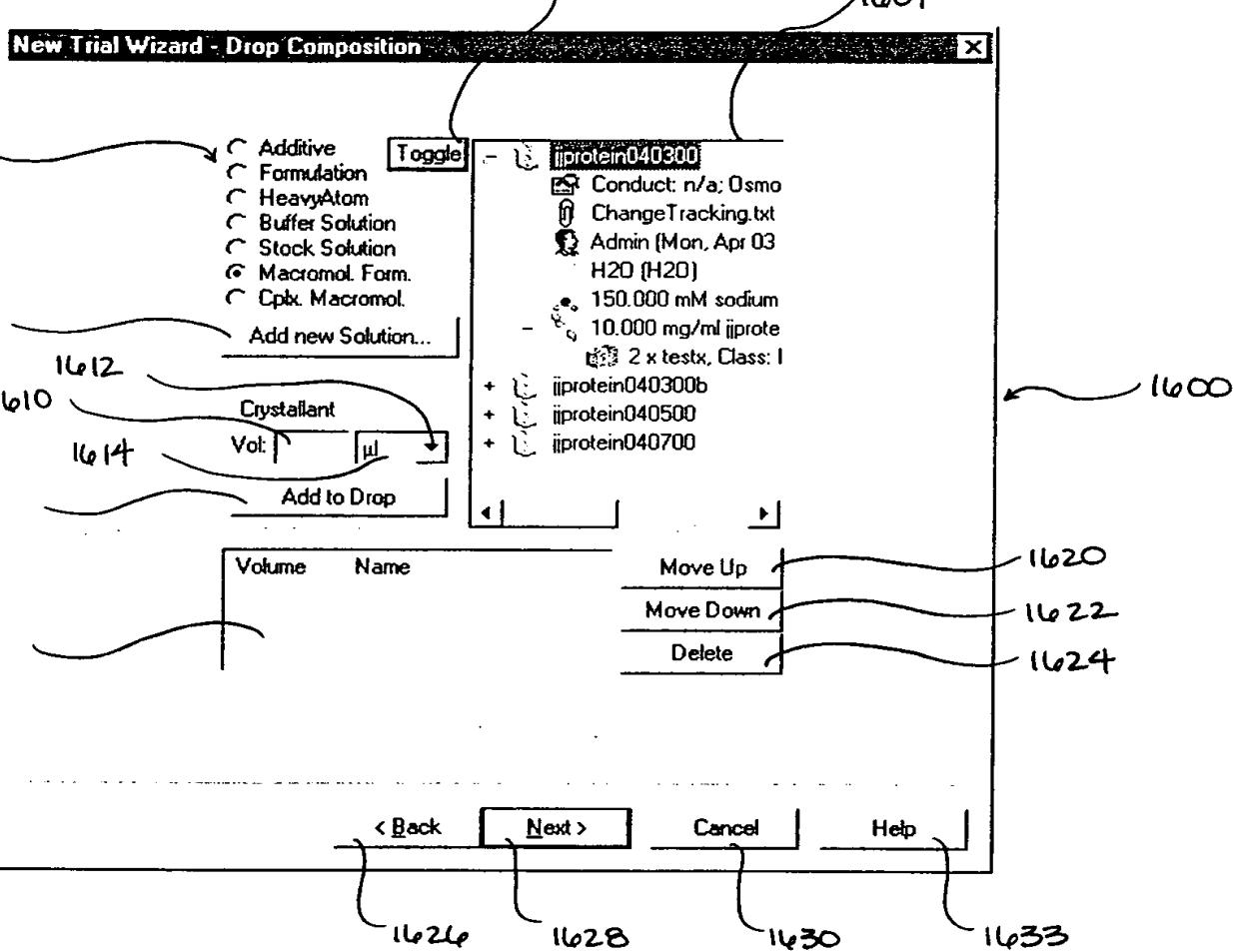


FIG. 16

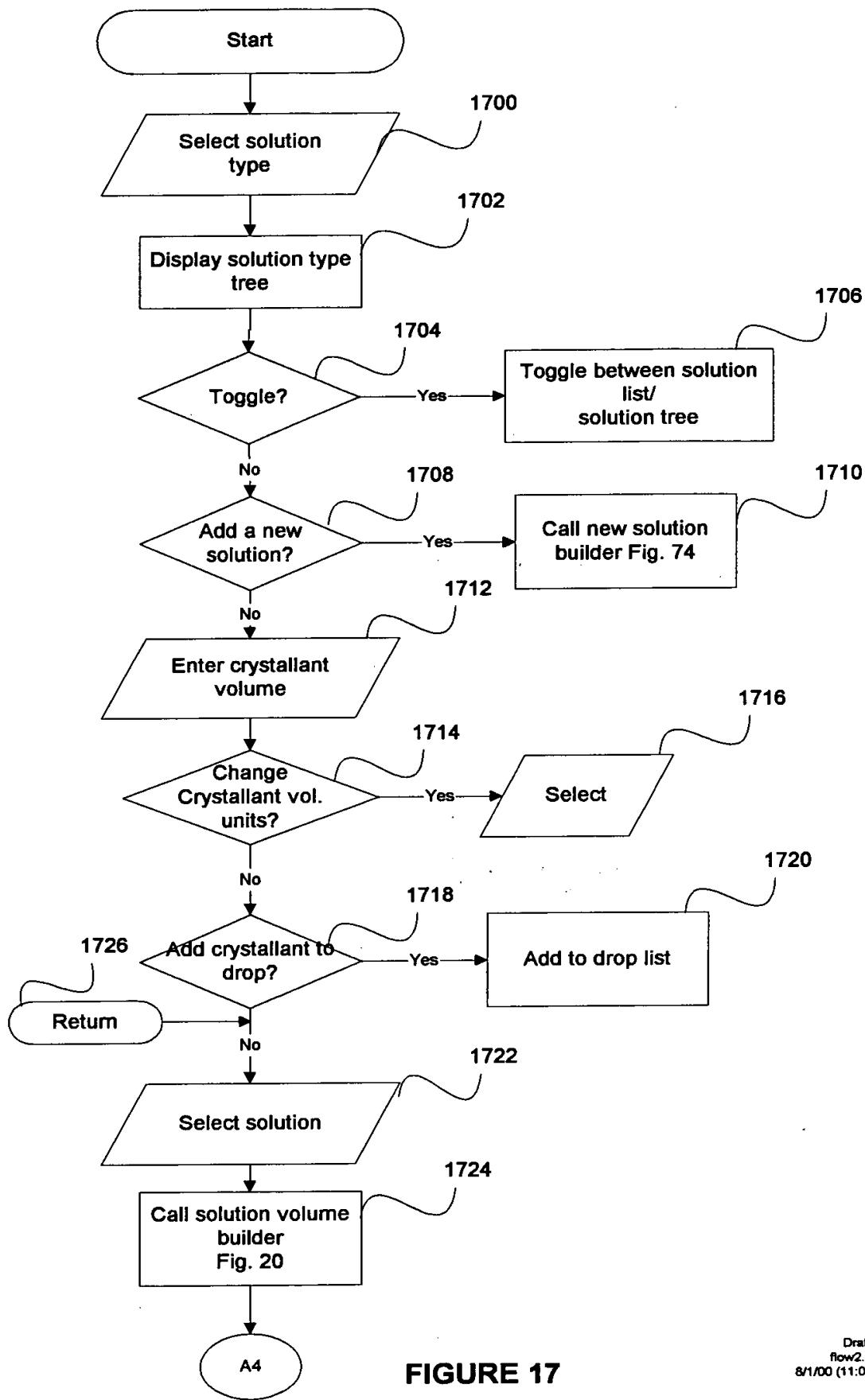


FIGURE 17

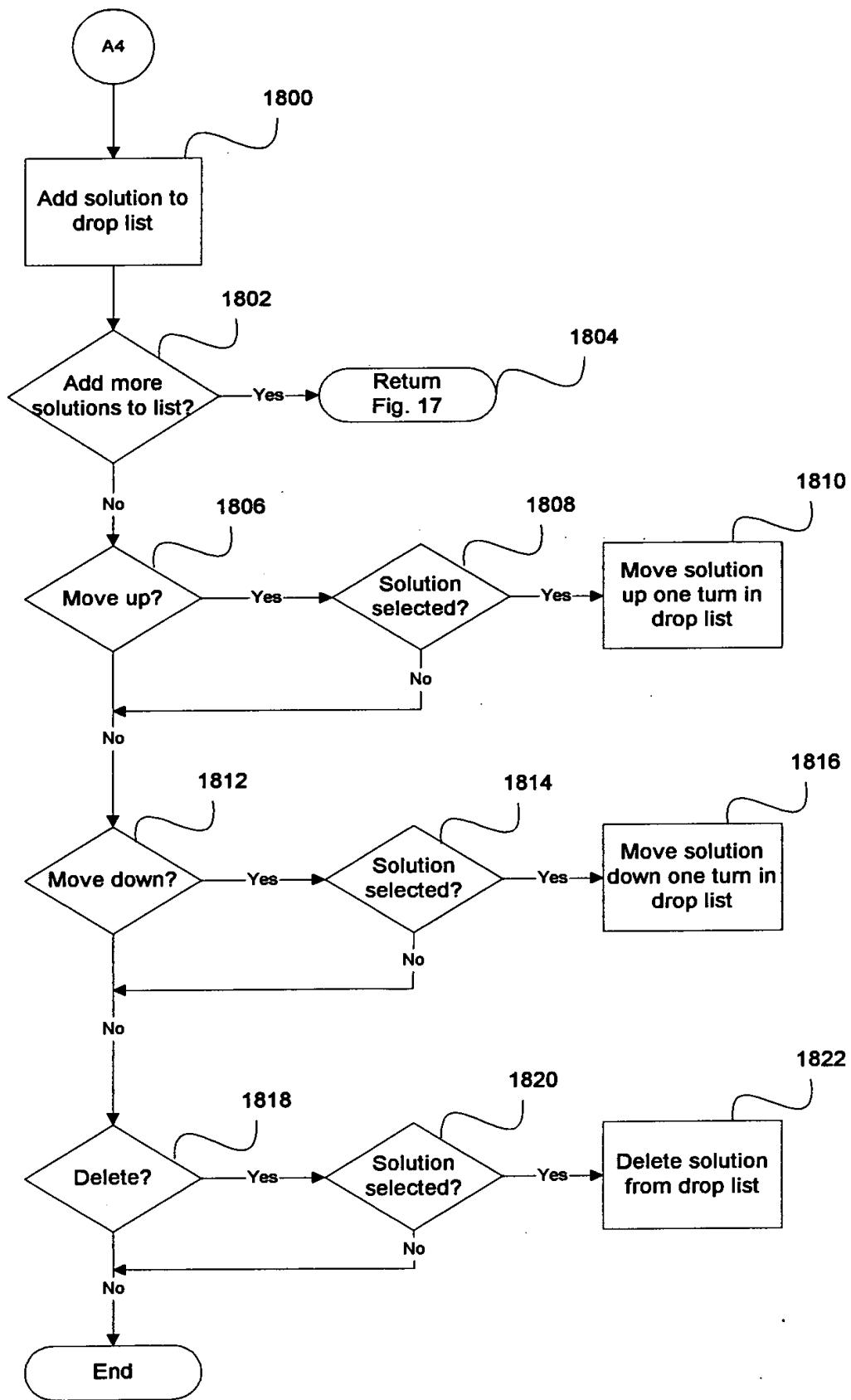


FIGURE 18

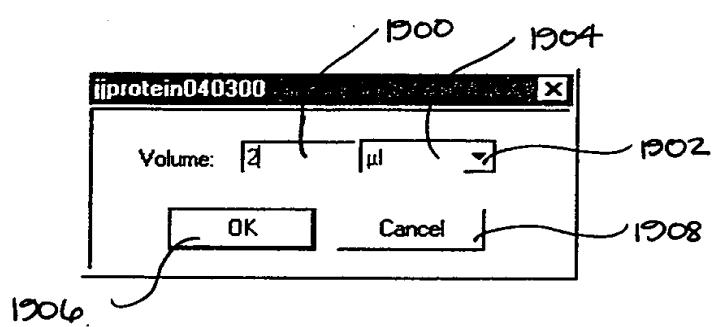


Fig. 19

00200000000000000000000000000000

0021000000000000

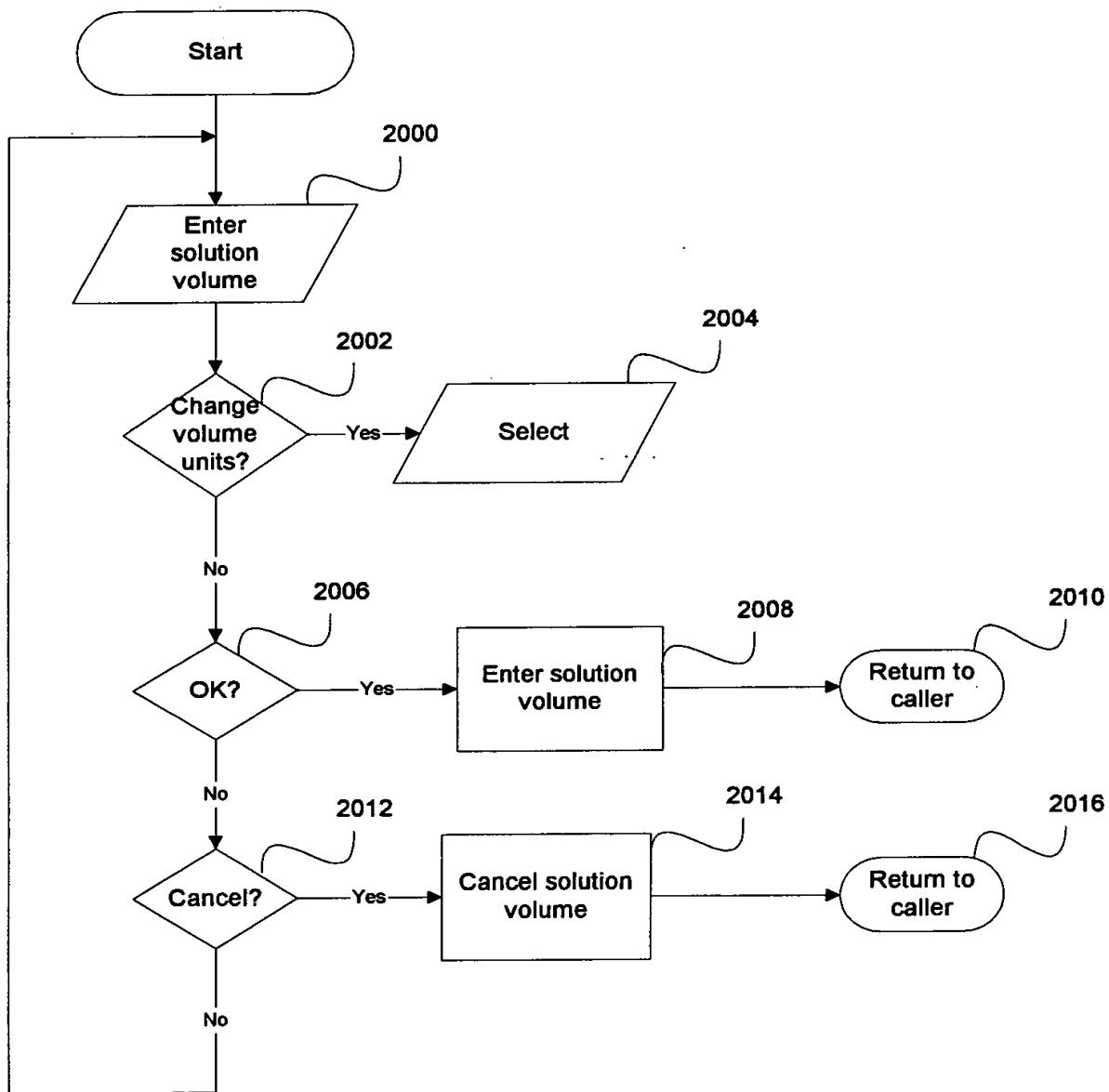


FIGURE 20

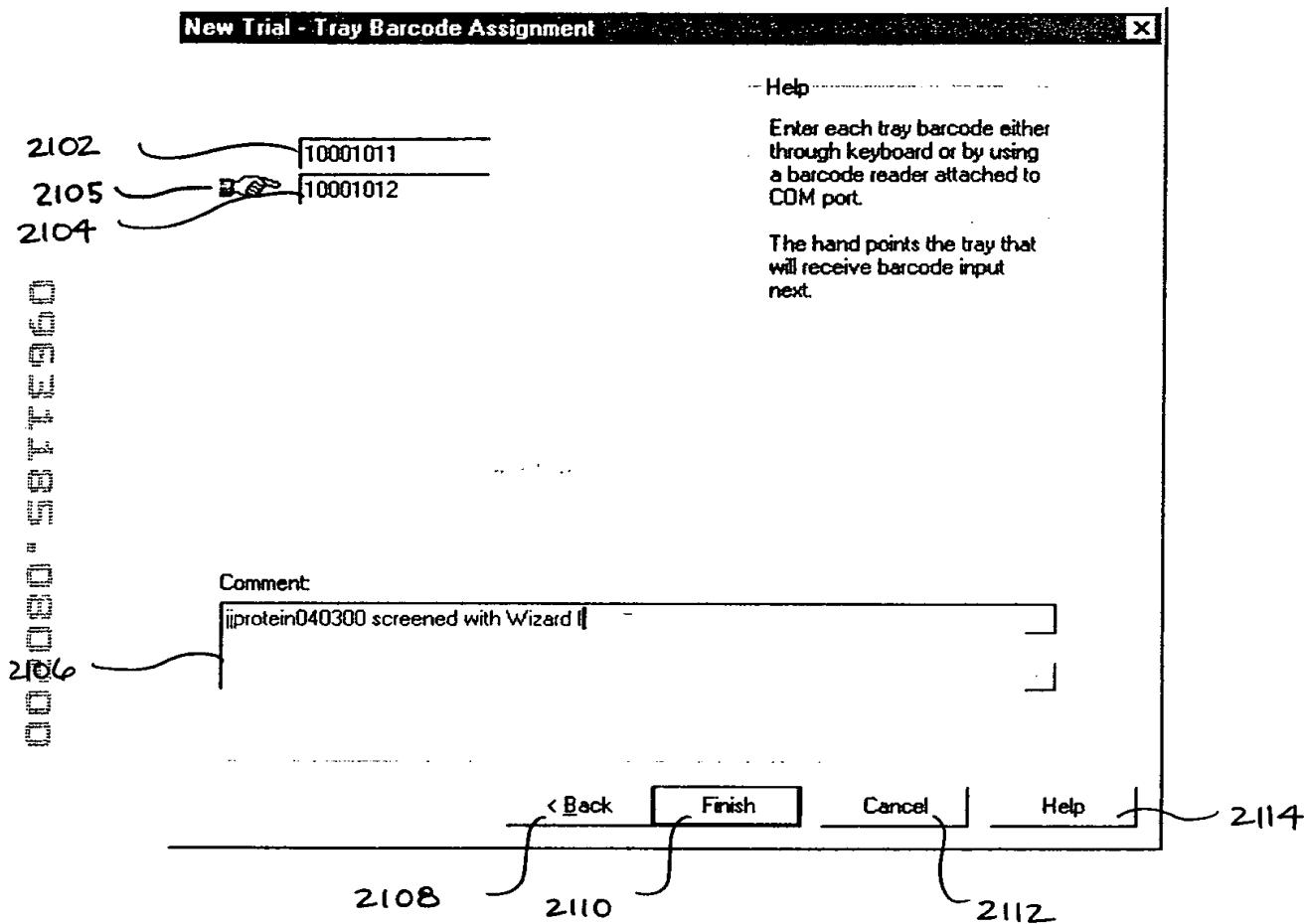


Fig. 21

000000000000000000000000

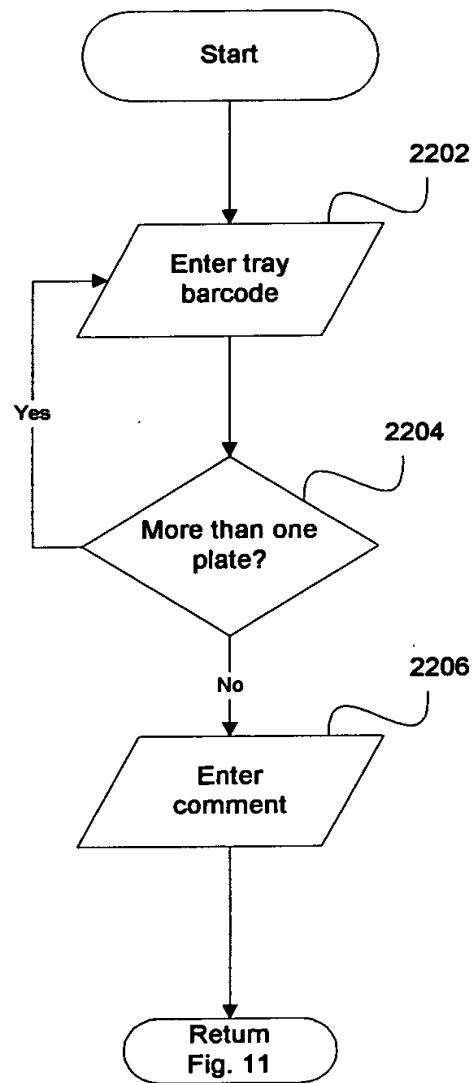


FIGURE 22

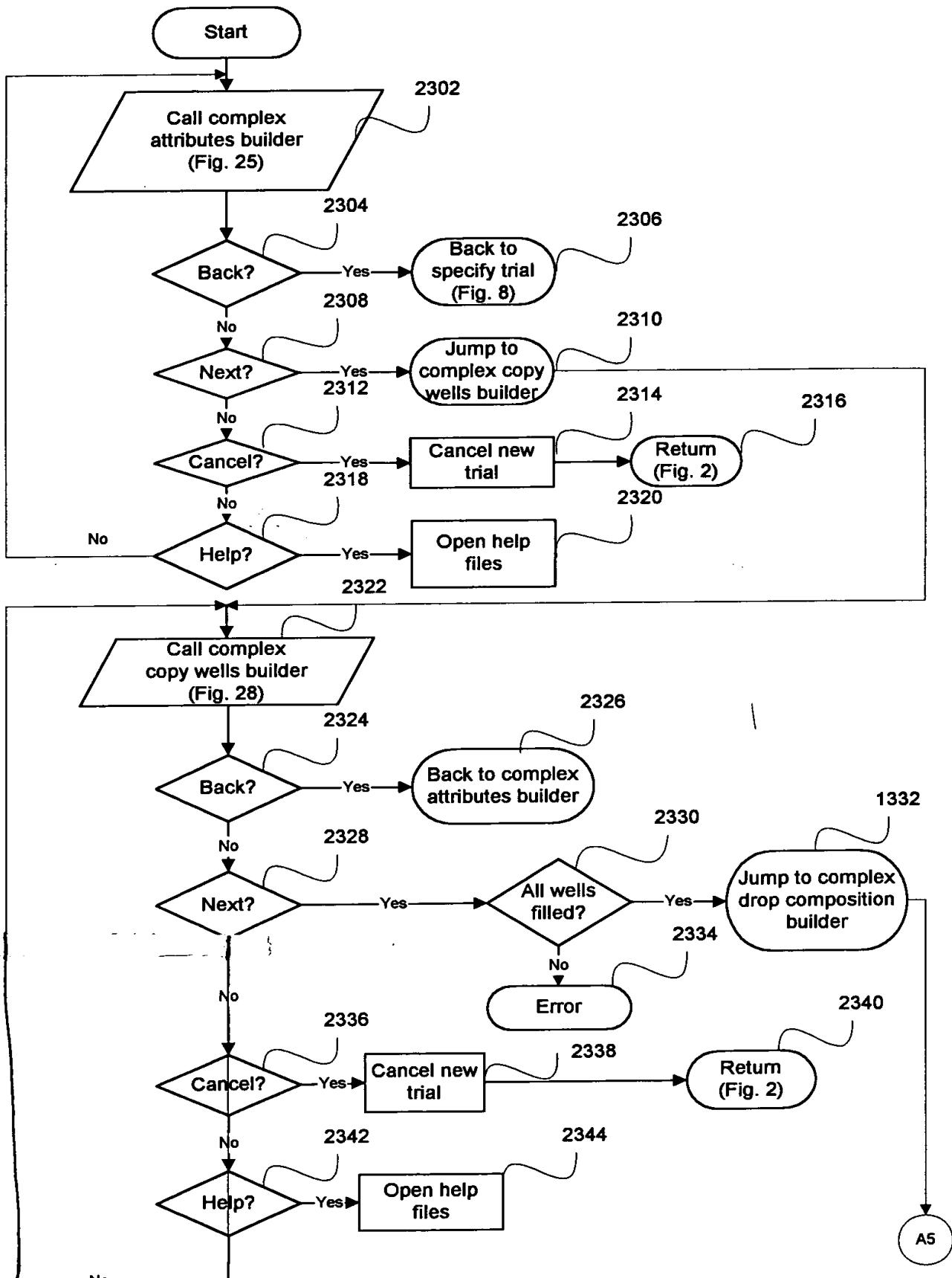


FIGURE 23

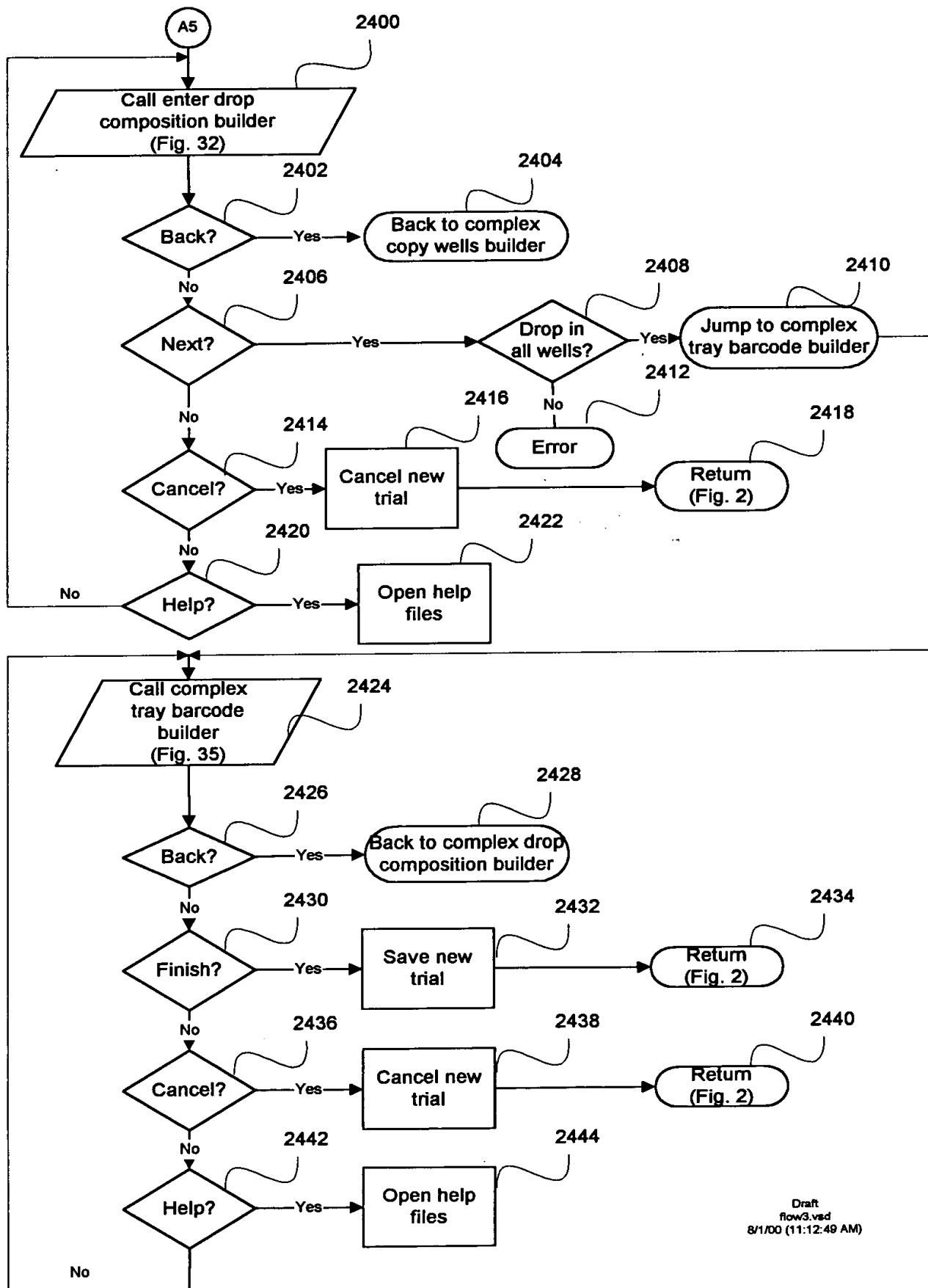


FIGURE 24

09631186 - 080200

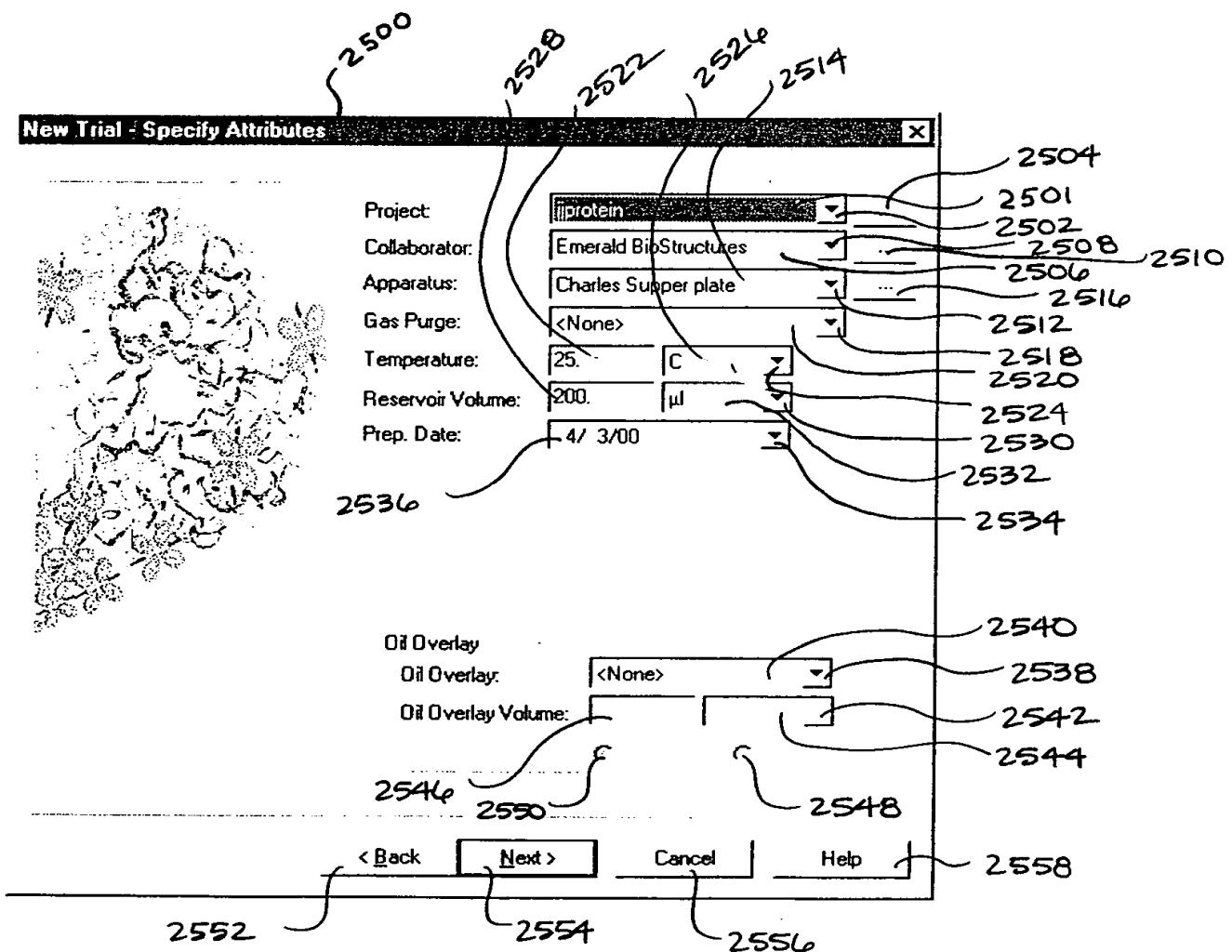


Fig. 25

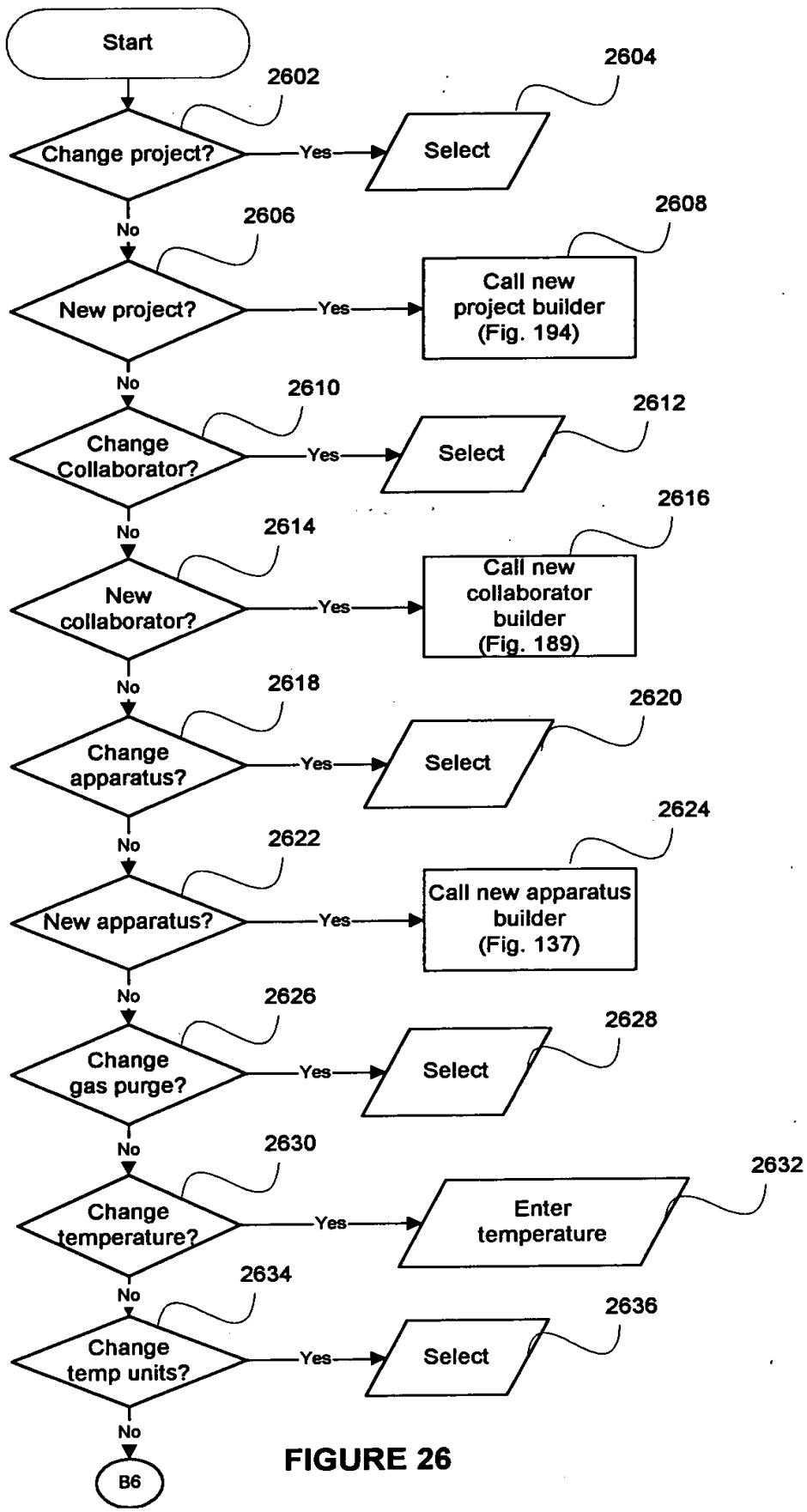


FIGURE 26

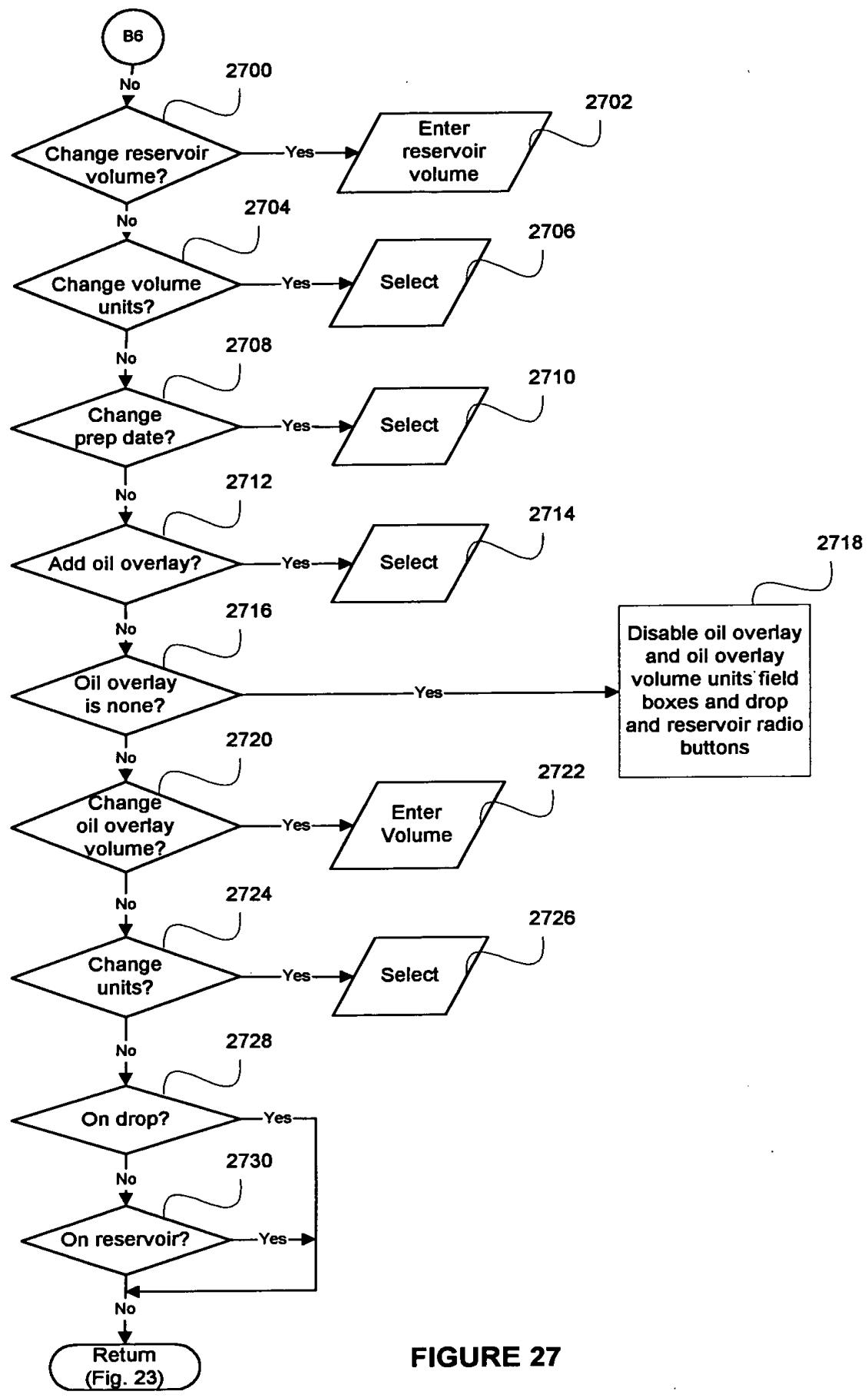


FIGURE 27

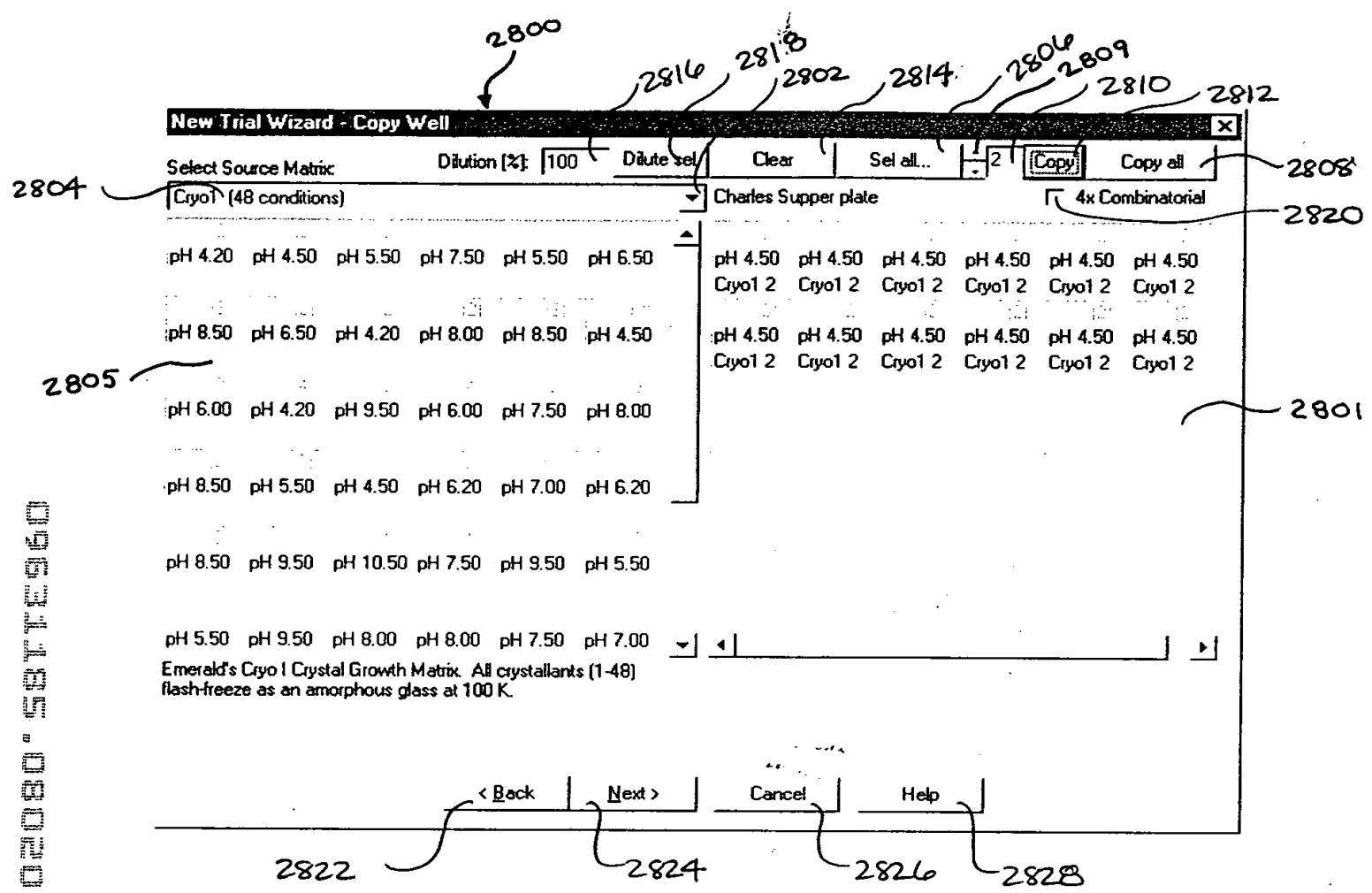


Fig. 28

00020880 - 58776960

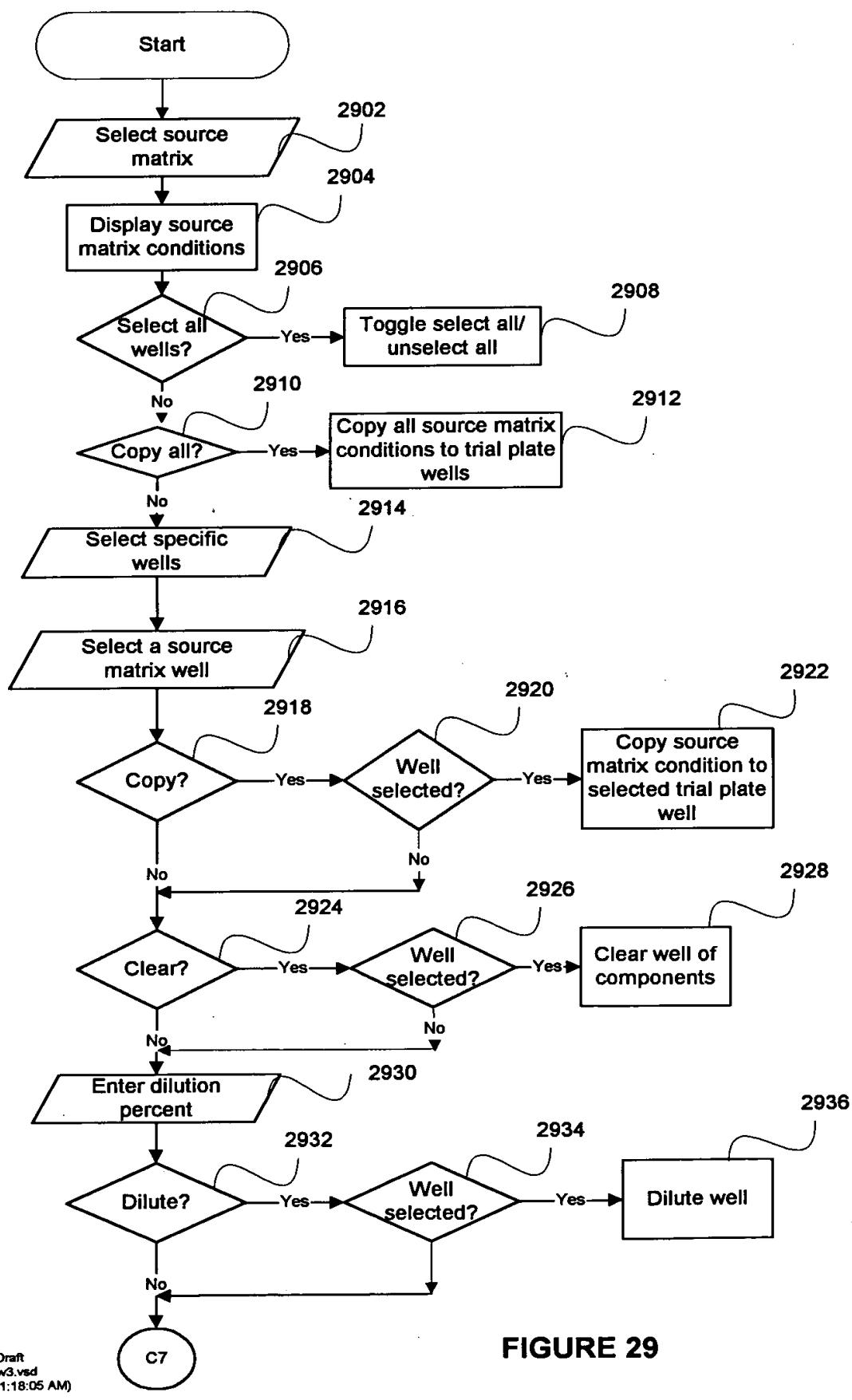
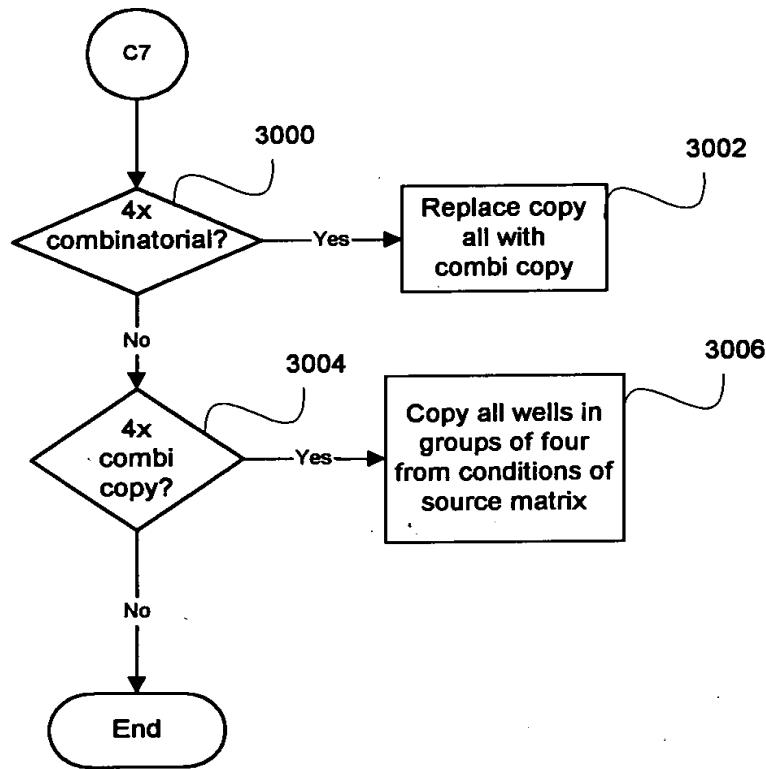


FIGURE 29



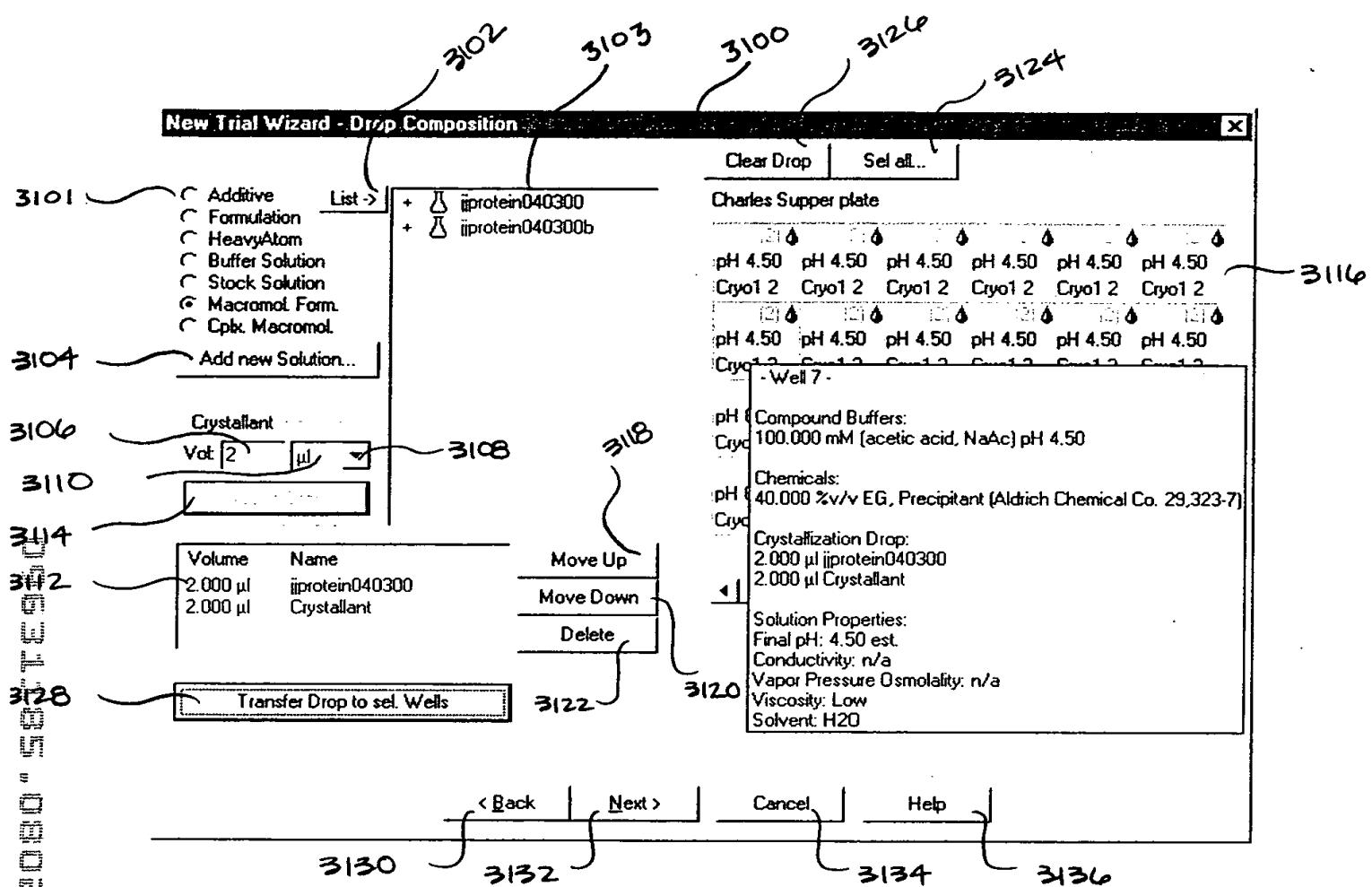


FIG. 31

0969226-0902000

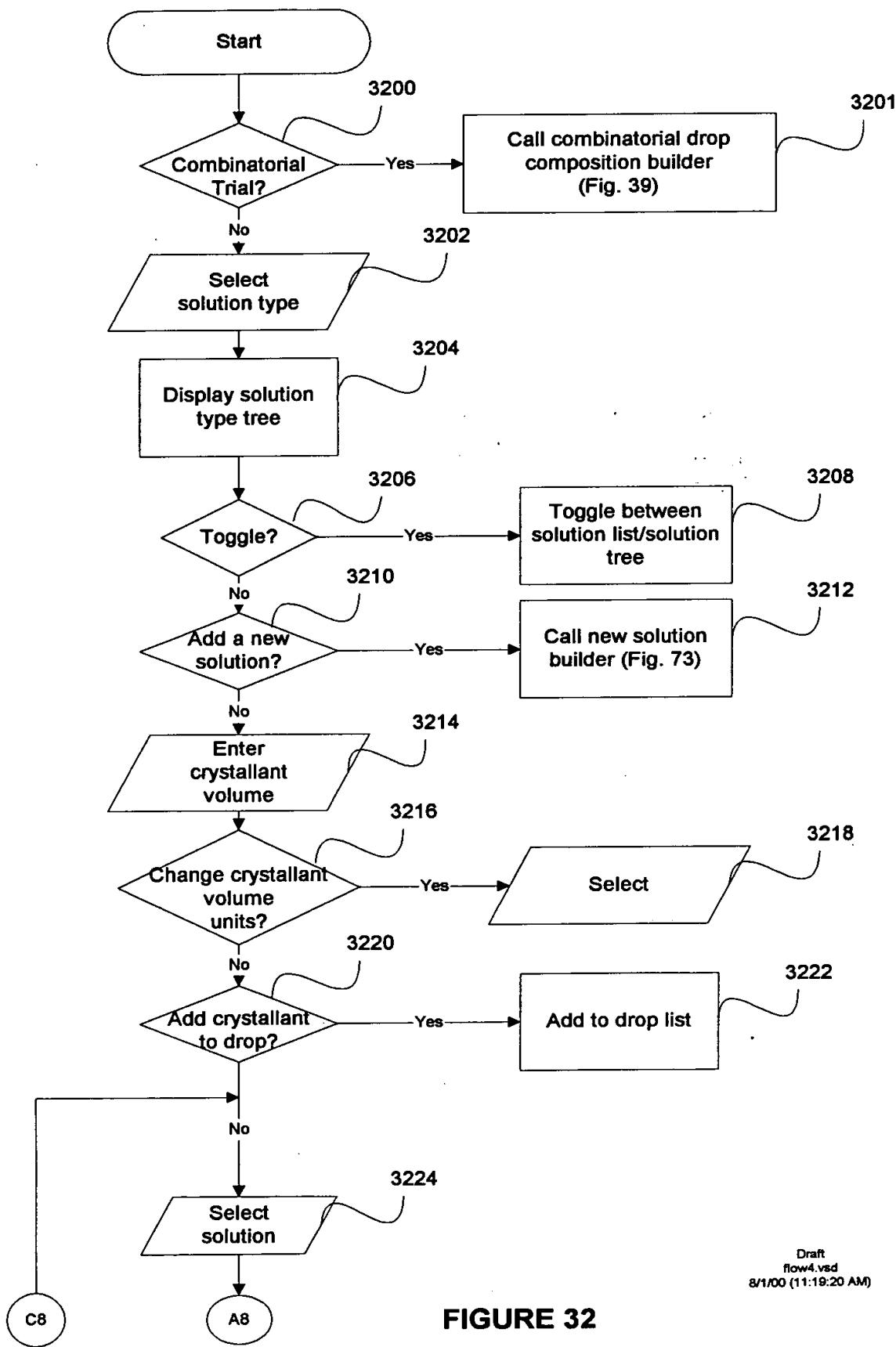


FIGURE 32

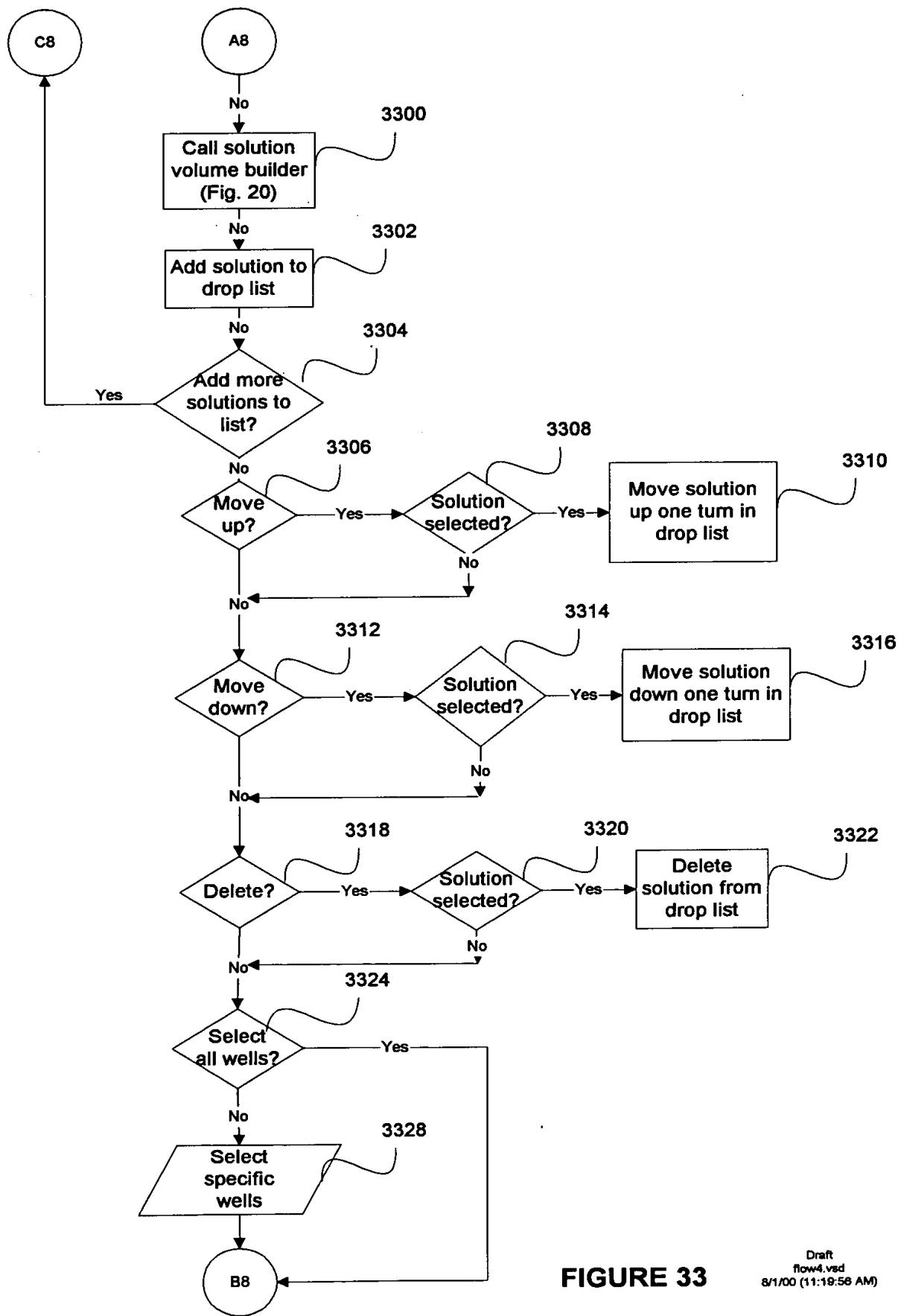


FIGURE 33

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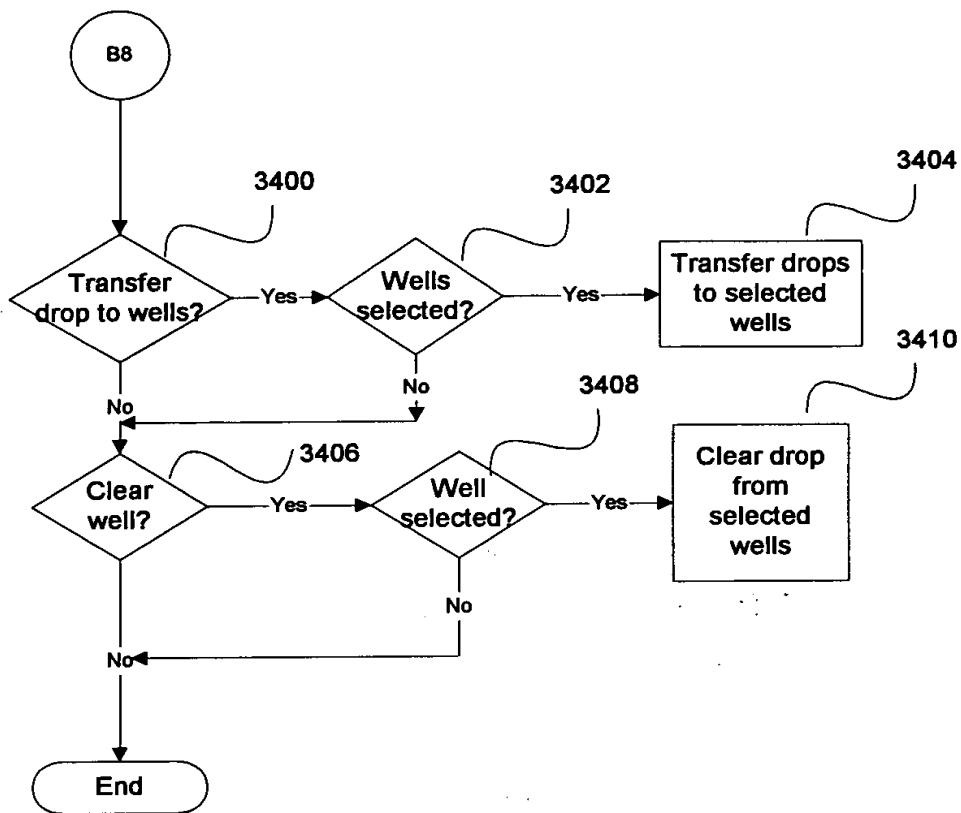


FIGURE 34

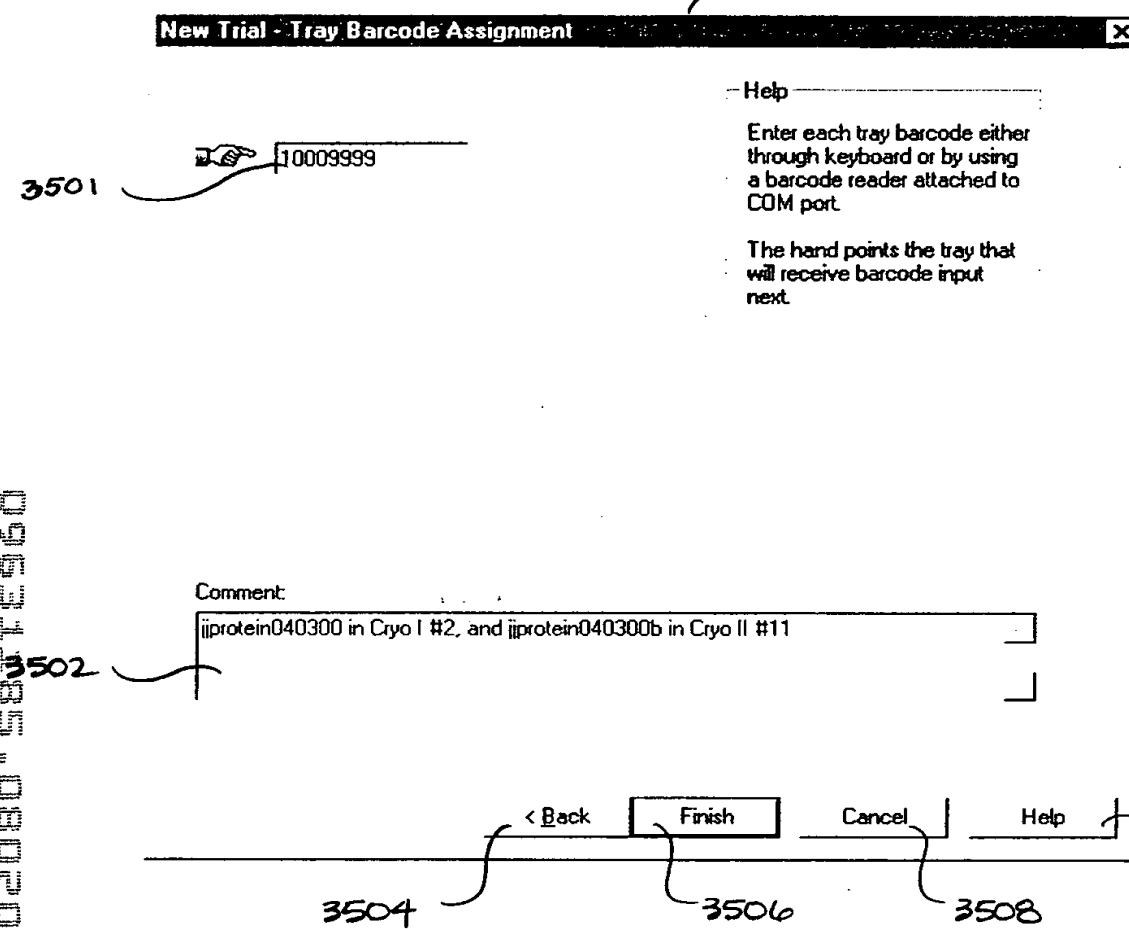


Fig. 35

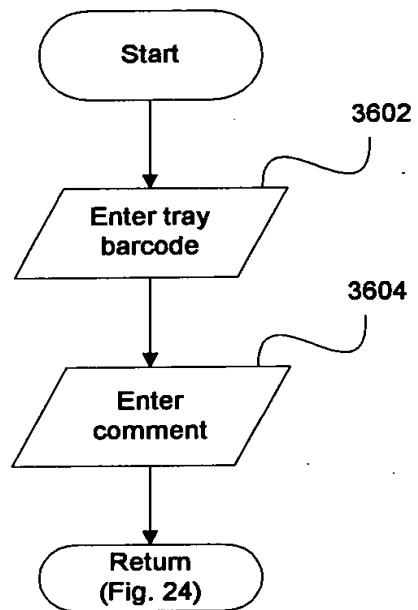


FIGURE 36

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flow4.vsd
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New Trial Wizard - Copy Well

Select Source Matrix:	Dilution [%]: 100	Dilute sel.	Clear	Sel all...	<input checked="" type="checkbox"/> 1	Copy	<input checked="" type="checkbox"/> 4x Combi Copy																																																																																								
Wzrd1 (48 conditions)		VDX plate 4x combi																																																																																													
<table border="1"> <tr> <td>pH 9.50</td> <td>pH 7.50</td> <td>pH 9.50</td> <td>pH 8.00</td> <td>pH 10.50</td> <td>pH 5.50</td> <td>pH 9.50</td> <td>pH 9.50</td> </tr> <tr> <td>Wzrd1 1</td> <td>Wzrd1 1</td> <td>Wzrd1 2</td> <td>Wzrd1 2</td> <td>Wzrd1 3</td> <td>Wzrd1 3</td> <td>Wzrd1 4</td> <td>Wzrd1 4</td> </tr> <tr> <td>pH 6.00</td> <td>pH 5.50</td> <td>pH 4.50</td> <td>pH 7.00</td> <td>pH 6.00</td> <td>pH 8.00</td> <td>pH 6.00</td> <td>pH 6.00</td> </tr> <tr> <td>Wzrd1 1</td> <td>Wzrd1 1</td> <td>Wzrd1 2</td> <td>Wzrd1 2</td> <td>Wzrd1 3</td> <td>Wzrd1 3</td> <td>Wzrd1 4</td> <td>Wzrd1 4</td> </tr> <tr> <td>pH 6.50</td> <td>pH 6.50</td> <td>pH 8.00</td> <td>pH 6.20</td> <td>pH 4.50</td> <td>pH 8.00</td> <td>pH 6.00</td> <td>pH 6.00</td> </tr> <tr> <td>Wzrd1 7</td> <td>Wzrd1 7</td> <td>Wzrd1 8</td> <td>Wzrd1 8</td> <td>Wzrd1 9</td> <td>Wzrd1 9</td> <td>Wzrd1 10</td> <td>Wzrd1 10</td> </tr> <tr> <td>pH 7.00</td> <td>pH 8.00</td> <td>pH 7.50</td> <td>pH 8.50</td> <td>pH 8.00</td> <td>pH 7.00</td> <td>pH 6.00</td> <td>pH 6.00</td> </tr> <tr> <td>Wzrd1 7</td> <td>Wzrd1 7</td> <td>Wzrd1 8</td> <td>Wzrd1 8</td> <td>Wzrd1 9</td> <td>Wzrd1 9</td> <td>Wzrd1 10</td> <td>Wzrd1 10</td> </tr> <tr> <td>pH 8.50</td> <td>pH 9.50</td> <td>pH 10.50</td> <td>pH 7.50</td> <td>pH 9.50</td> <td>pH 4.50</td> <td>pH 6.50</td> <td>pH 6.50</td> </tr> <tr> <td>Wzrd1 13</td> <td>Wzrd1 13</td> <td>Wzrd1 14</td> <td>Wzrd1 14</td> <td>Wzrd1 14</td> <td>Wzrd1 15</td> <td>Wzrd1 14</td> <td>Wzrd1 15</td> </tr> <tr> <td>pH 4.20</td> <td>pH 6.20</td> <td>pH 10.50</td> <td>pH 8.00</td> <td>pH 4.50</td> <td>pH 8.00</td> <td></td> <td></td> </tr> </table>								pH 9.50	pH 7.50	pH 9.50	pH 8.00	pH 10.50	pH 5.50	pH 9.50	pH 9.50	Wzrd1 1	Wzrd1 1	Wzrd1 2	Wzrd1 2	Wzrd1 3	Wzrd1 3	Wzrd1 4	Wzrd1 4	pH 6.00	pH 5.50	pH 4.50	pH 7.00	pH 6.00	pH 8.00	pH 6.00	pH 6.00	Wzrd1 1	Wzrd1 1	Wzrd1 2	Wzrd1 2	Wzrd1 3	Wzrd1 3	Wzrd1 4	Wzrd1 4	pH 6.50	pH 6.50	pH 8.00	pH 6.20	pH 4.50	pH 8.00	pH 6.00	pH 6.00	Wzrd1 7	Wzrd1 7	Wzrd1 8	Wzrd1 8	Wzrd1 9	Wzrd1 9	Wzrd1 10	Wzrd1 10	pH 7.00	pH 8.00	pH 7.50	pH 8.50	pH 8.00	pH 7.00	pH 6.00	pH 6.00	Wzrd1 7	Wzrd1 7	Wzrd1 8	Wzrd1 8	Wzrd1 9	Wzrd1 9	Wzrd1 10	Wzrd1 10	pH 8.50	pH 9.50	pH 10.50	pH 7.50	pH 9.50	pH 4.50	pH 6.50	pH 6.50	Wzrd1 13	Wzrd1 13	Wzrd1 14	Wzrd1 14	Wzrd1 14	Wzrd1 15	Wzrd1 14	Wzrd1 15	pH 4.20	pH 6.20	pH 10.50	pH 8.00	pH 4.50	pH 8.00		
pH 9.50	pH 7.50	pH 9.50	pH 8.00	pH 10.50	pH 5.50	pH 9.50	pH 9.50																																																																																								
Wzrd1 1	Wzrd1 1	Wzrd1 2	Wzrd1 2	Wzrd1 3	Wzrd1 3	Wzrd1 4	Wzrd1 4																																																																																								
pH 6.00	pH 5.50	pH 4.50	pH 7.00	pH 6.00	pH 8.00	pH 6.00	pH 6.00																																																																																								
Wzrd1 1	Wzrd1 1	Wzrd1 2	Wzrd1 2	Wzrd1 3	Wzrd1 3	Wzrd1 4	Wzrd1 4																																																																																								
pH 6.50	pH 6.50	pH 8.00	pH 6.20	pH 4.50	pH 8.00	pH 6.00	pH 6.00																																																																																								
Wzrd1 7	Wzrd1 7	Wzrd1 8	Wzrd1 8	Wzrd1 9	Wzrd1 9	Wzrd1 10	Wzrd1 10																																																																																								
pH 7.00	pH 8.00	pH 7.50	pH 8.50	pH 8.00	pH 7.00	pH 6.00	pH 6.00																																																																																								
Wzrd1 7	Wzrd1 7	Wzrd1 8	Wzrd1 8	Wzrd1 9	Wzrd1 9	Wzrd1 10	Wzrd1 10																																																																																								
pH 8.50	pH 9.50	pH 10.50	pH 7.50	pH 9.50	pH 4.50	pH 6.50	pH 6.50																																																																																								
Wzrd1 13	Wzrd1 13	Wzrd1 14	Wzrd1 14	Wzrd1 14	Wzrd1 15	Wzrd1 14	Wzrd1 15																																																																																								
pH 4.20	pH 6.20	pH 10.50	pH 8.00	pH 4.50	pH 8.00																																																																																										
Emerald's Wizard I Crystal Growth Matrix. A random sparse matrix of crystallants (1-48).																																																																																															

3702

3701

3704

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3712

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3716

Fig. 37

New Trial Wizard - Drop Composition

- Additive
- Formulation
- HeavyAtom
- Buffer Solution
- Stock Solution
- Macromol. Form.
- Cplx. Macromol. Form.

Add new Solution...

Crystallant

Vol: 2

Add to Drop

Volume	Name
2.00 µl	yyz4810
2.00 µl	Crystallant

Move Up

Move Down

Delete

Transfer Drop to sel. Wells

Clear Drop Sel all...

CC
CC

CombiClover

(2)	(2)	(3)	(3)	(2)	(2)
pH 9.50	pH 9.50	pH 7.50	pH 7.50	pH 9.50	pH 9.50
Wzrd1 1	Wzrd1 1	Wzrd1 2	Wzrd1 2	Wzrd1 3	Wzrd1 3
(2)	(2)	(3)	(3)	(2)	(2)
pH 9.50	pH 9.50	pH 7.50	pH 7.50	pH 9.50	pH 9.50
Wzrd1 1	Wzrd1 1	Wzrd1 2	Wzrd1 2	Wzrd1 3	Wzrd1 3
(3)	(3)	(2)	(2)	(2)	(2)
pH 6.00	pH 6.00	pH 5.50	pH 5.50	pH 4.50	pH 4.50
Wzrd1 7	Wzrd1 7	Wzrd1 8	Wzrd1 8	Wzrd1 9	Wzrd1 9
(3)	(3)	(2)	(2)	(2)	(2)
pH 6.00	pH 6.00	pH 5.50	pH 5.50	pH 4.50	pH 4.50
Wzrd1 7	Wzrd1 7	Wzrd1 8	Wzrd1 8	Wzrd1 9	Wzrd1 9
(2)	(2)	(2)	(2)	(3)	(3)
pH 6.50	pH 6.50	pH 6.50	pH 6.50	pH 8.00	pH 8.00
Wzrd1 13	Wzrd1 13	Wzrd1 14	Wzrd1 14	Wzrd1 15	Wzrd1 15
(2)	(2)	(2)	(2)	(2)	(2)
pH 6.50	pH 6.50	pH 6.50	pH 6.50	pH 8.00	pH 8.00
Wzrd1 13	Wzrd1 13	Wzrd1 14	Wzrd1 14	Wzrd1 15	Wzrd1 15

< Back

Next >

Cancel

Help

3800

3801

3802

3804

3804

3808

3810

Fig. 38

0000000000000000

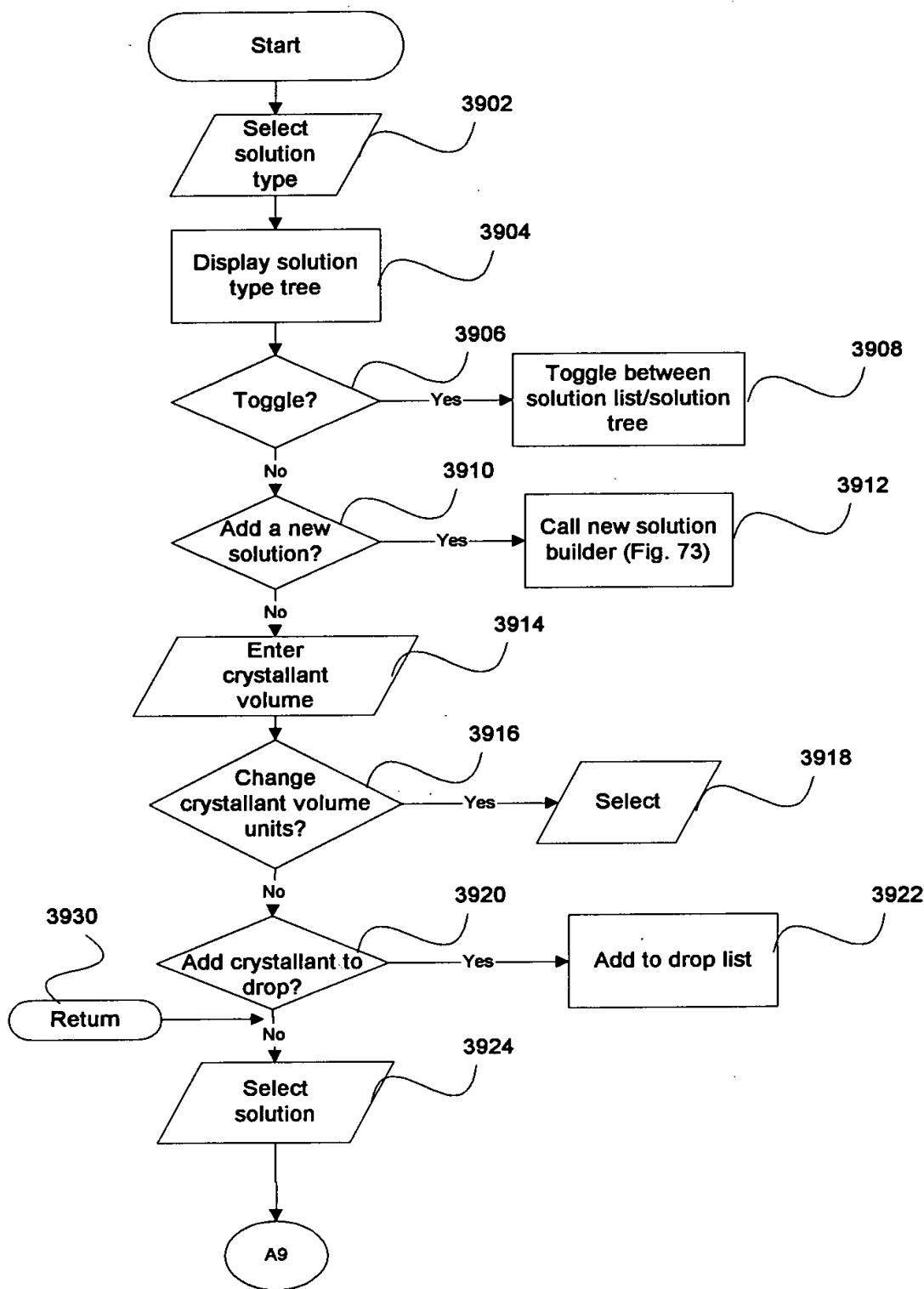


FIGURE 39

0000000000000000

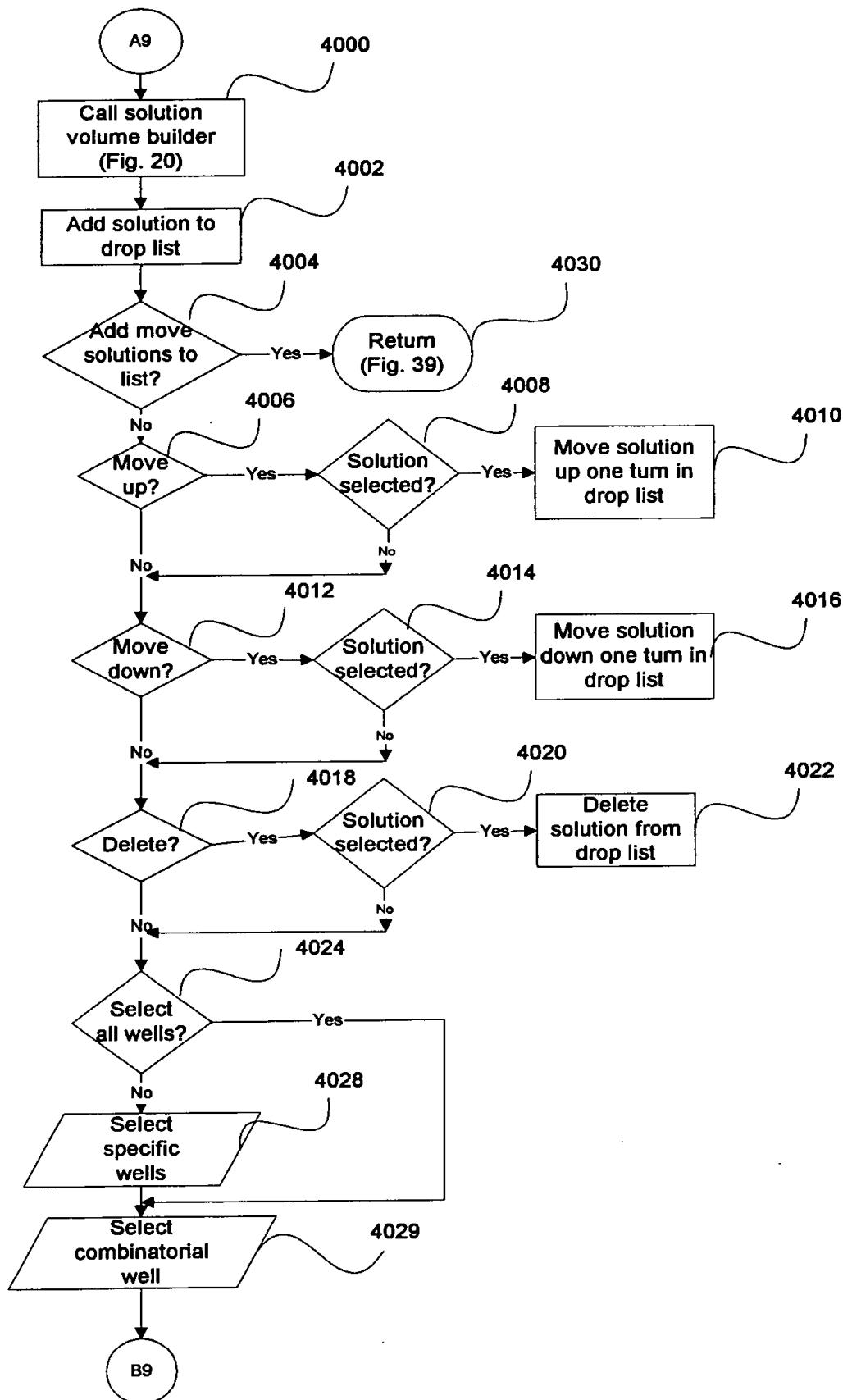
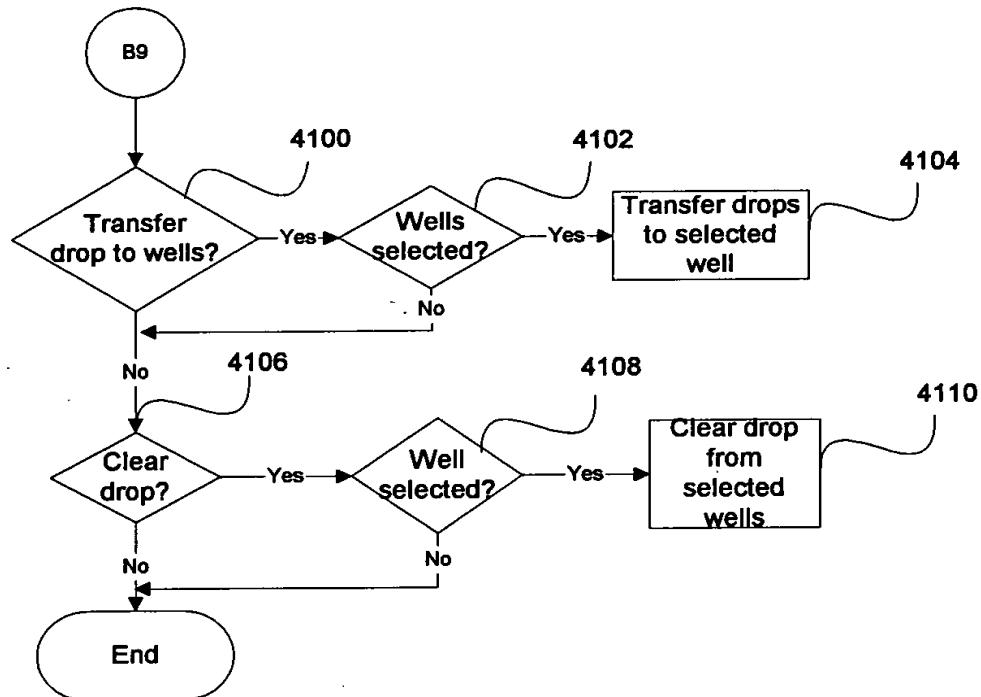


FIGURE 40

**FIGURE 41**

00000000000000000000000000000000

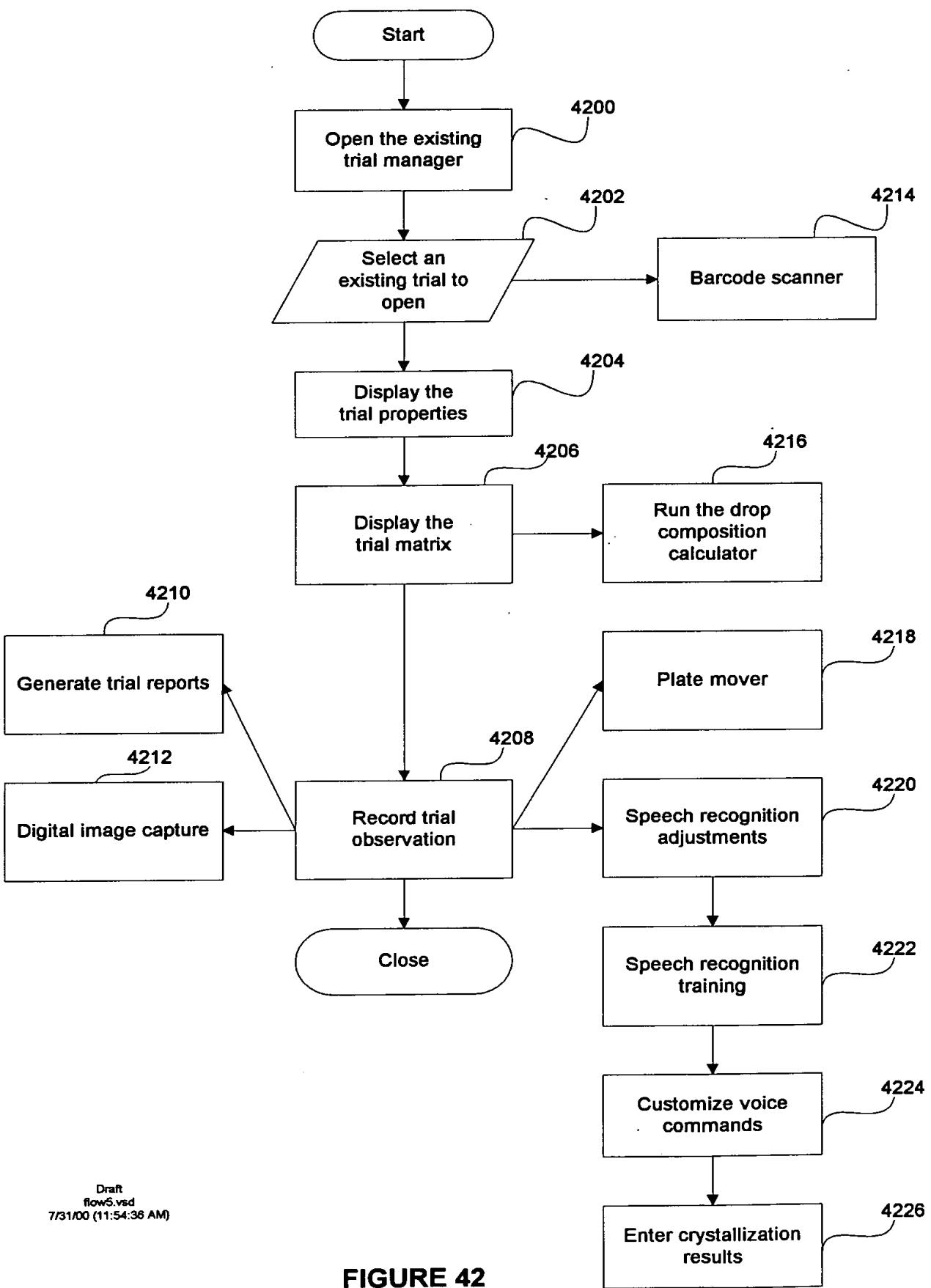


FIGURE 42

OpenTrial - OpenTrial

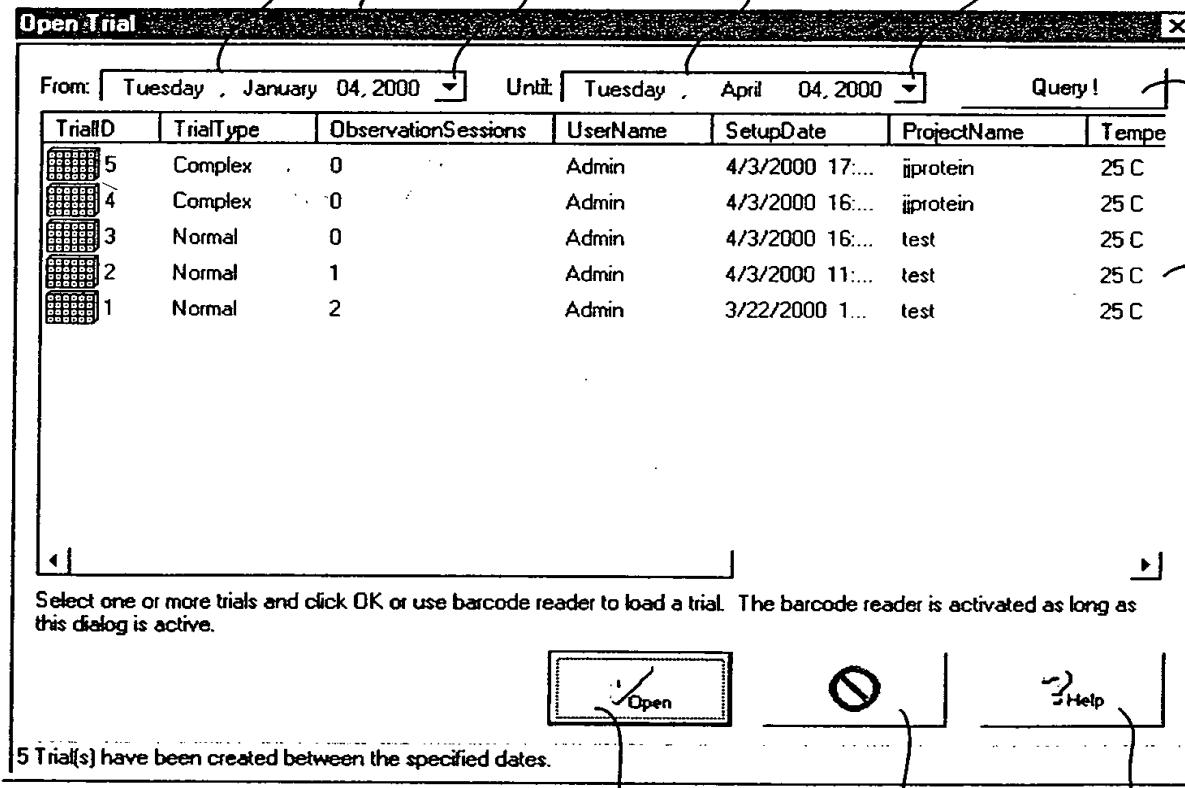


Fig. 43

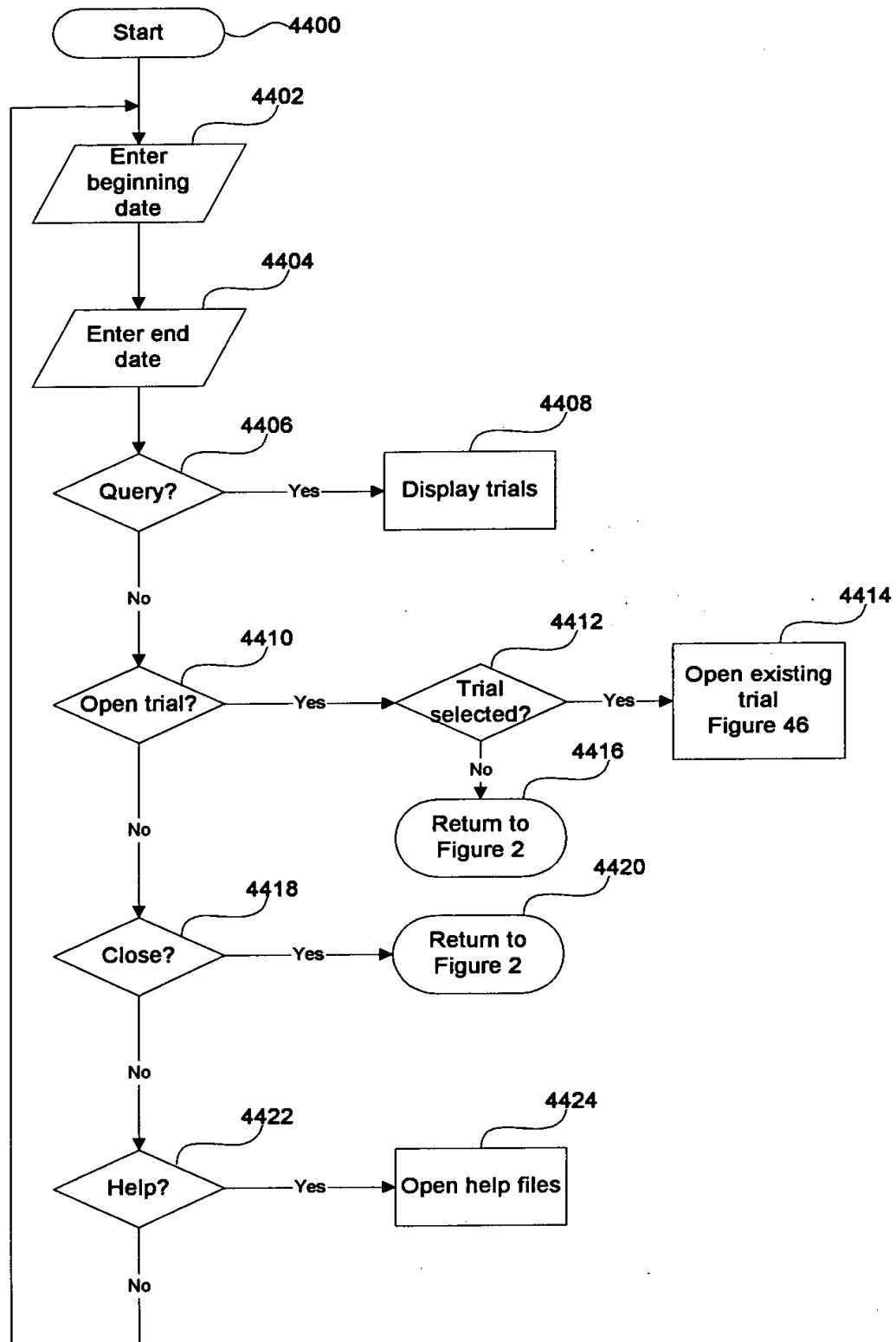


FIGURE 44

000000000000000000000000

4501

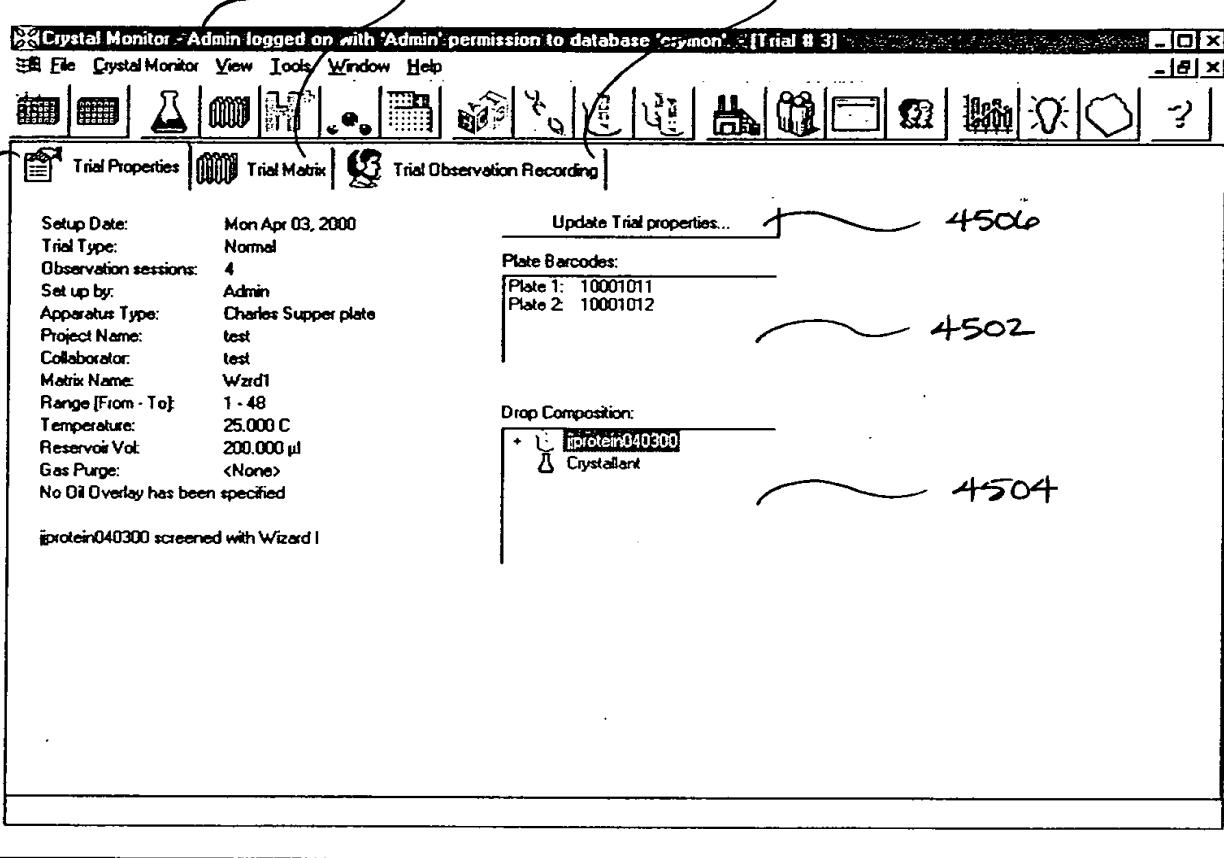


FIG. 45

09021922 - 0902200

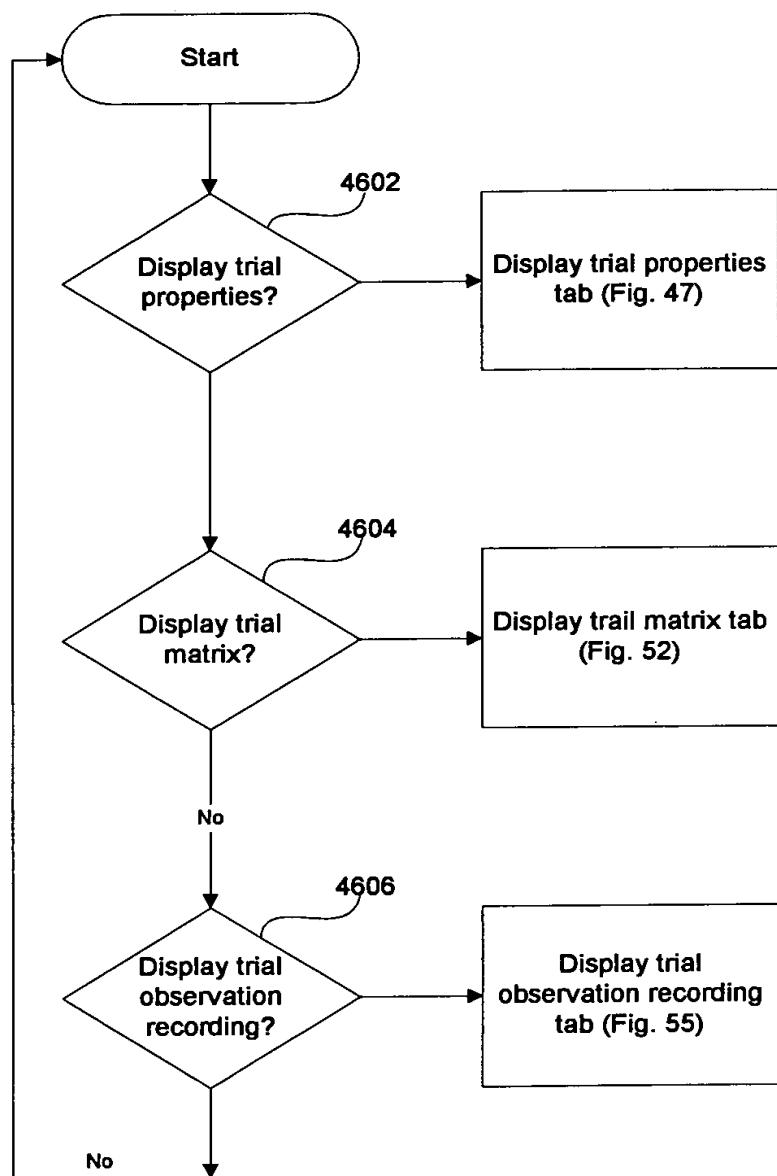


FIGURE 46

00000000000000000000000000000000

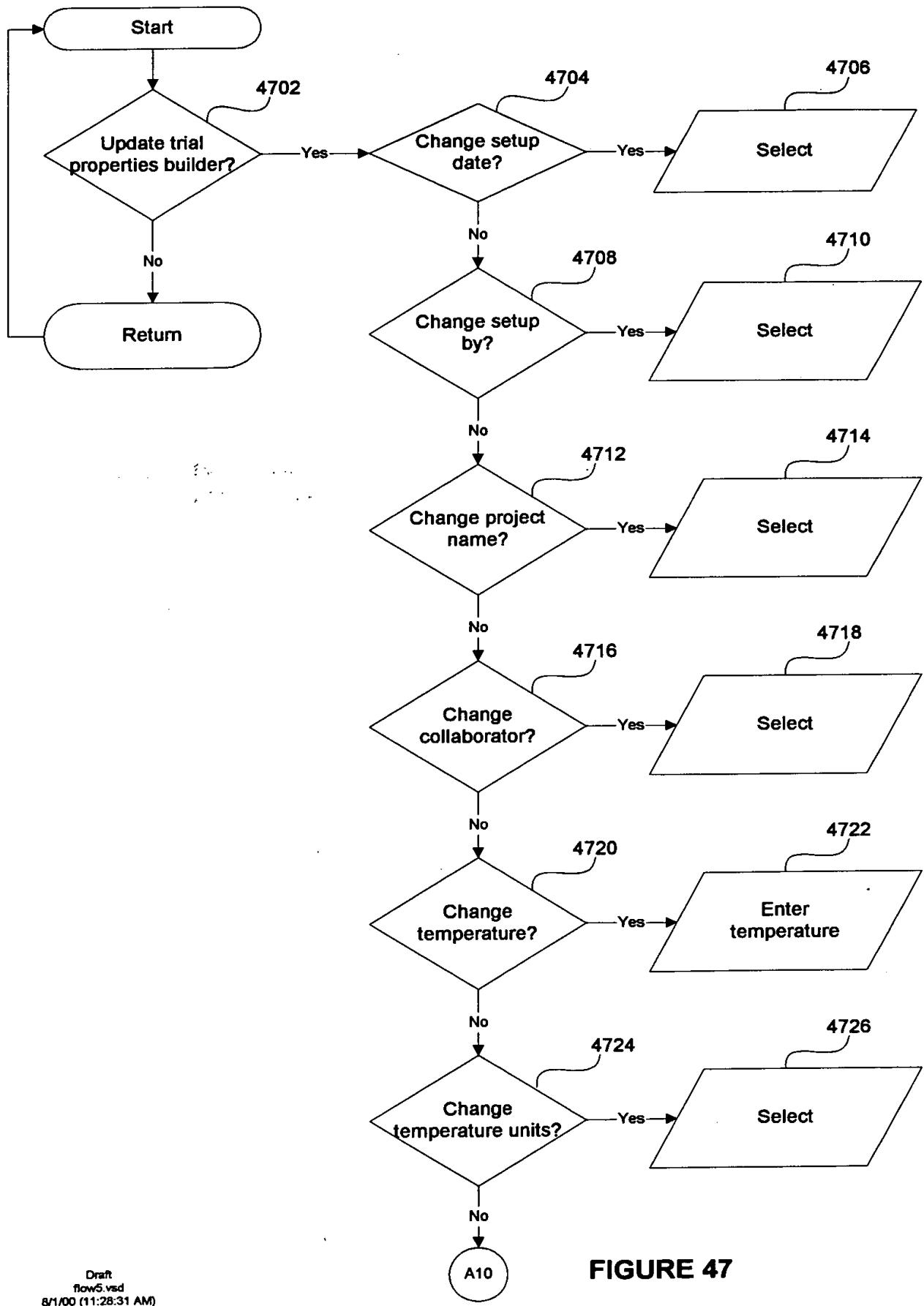


FIGURE 47

000000000000000000

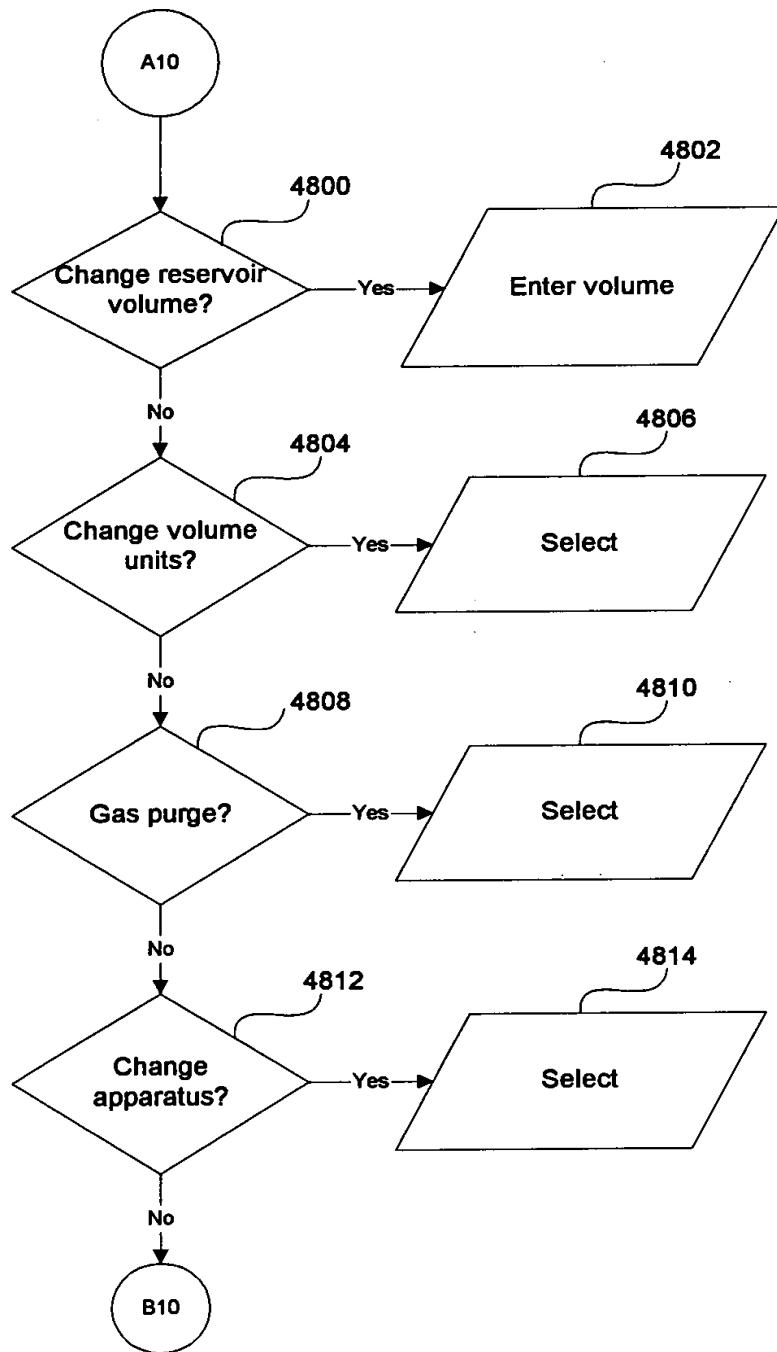


FIGURE 48

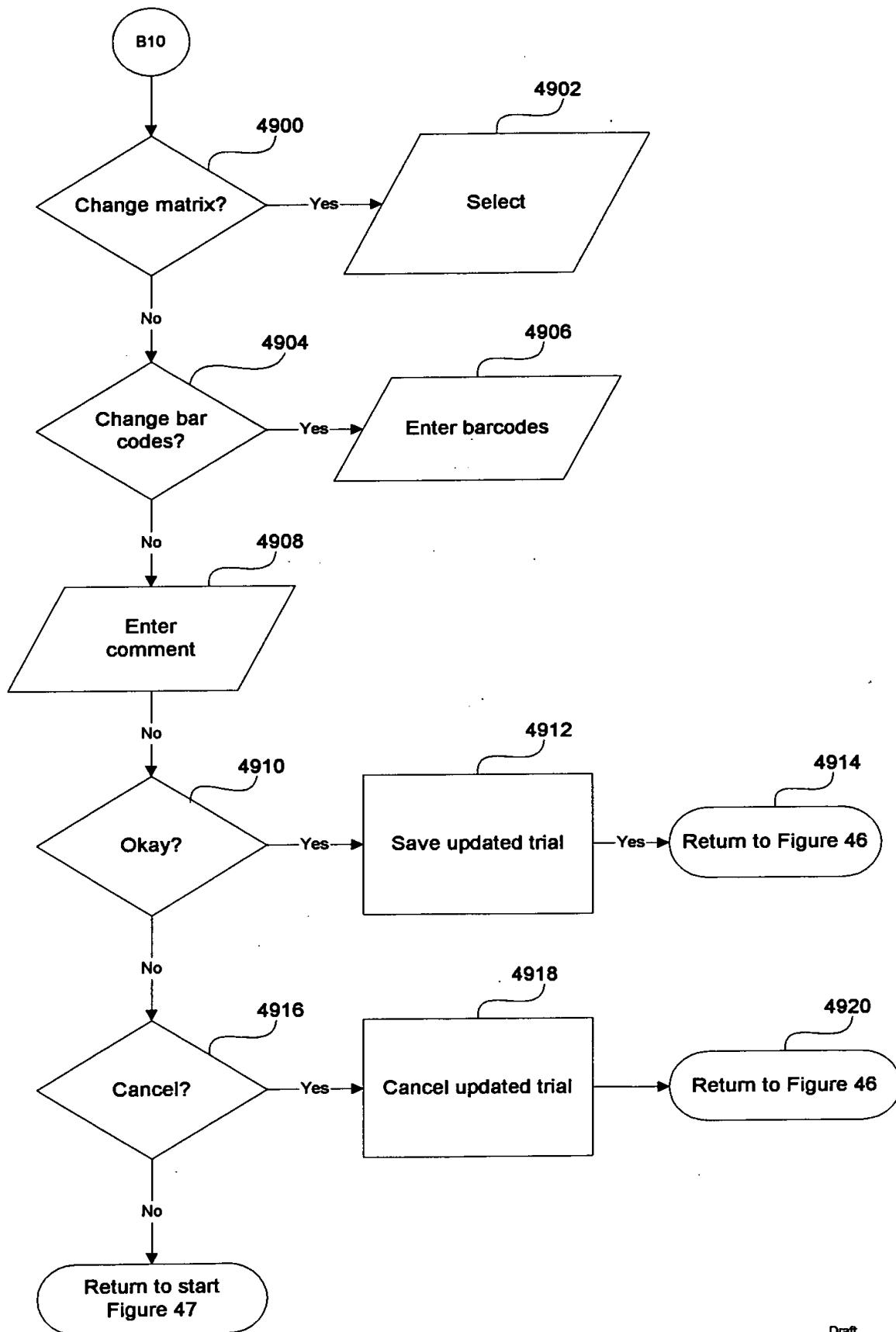


FIGURE 49

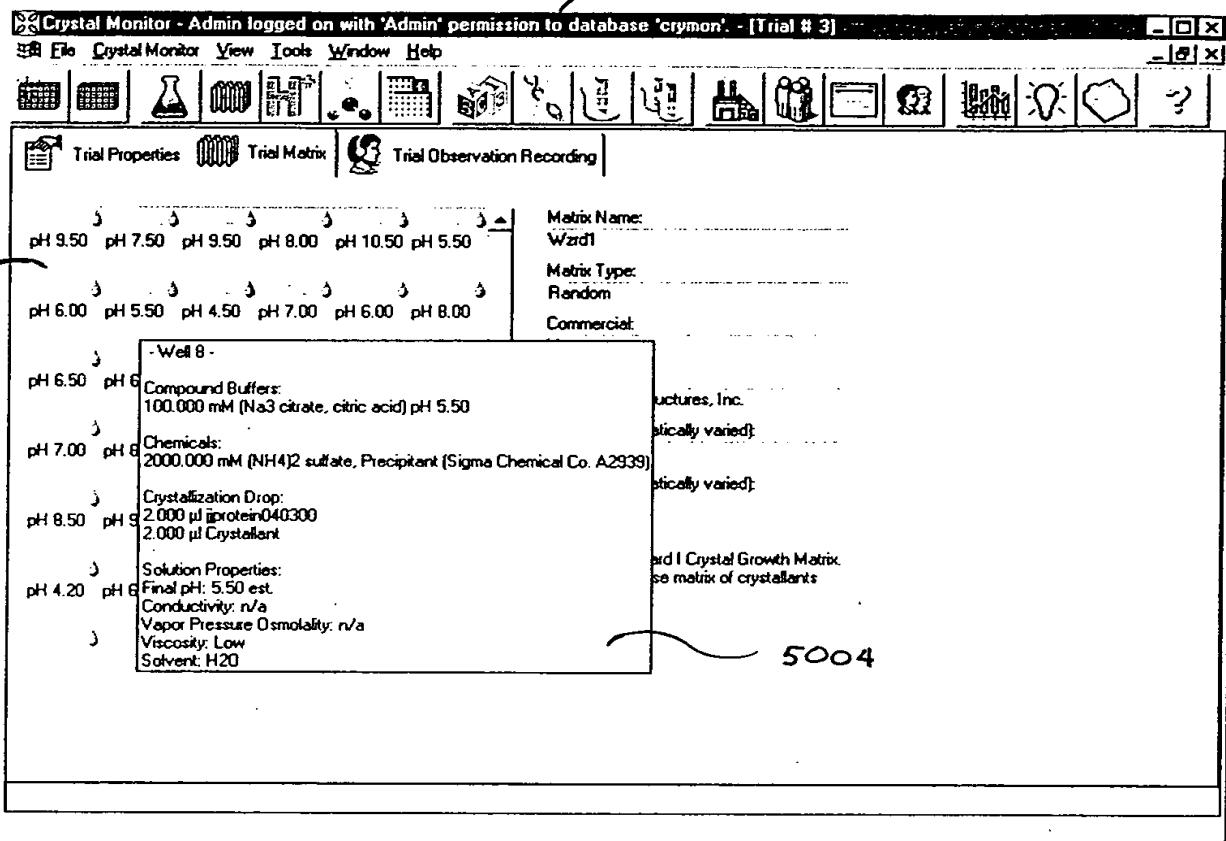
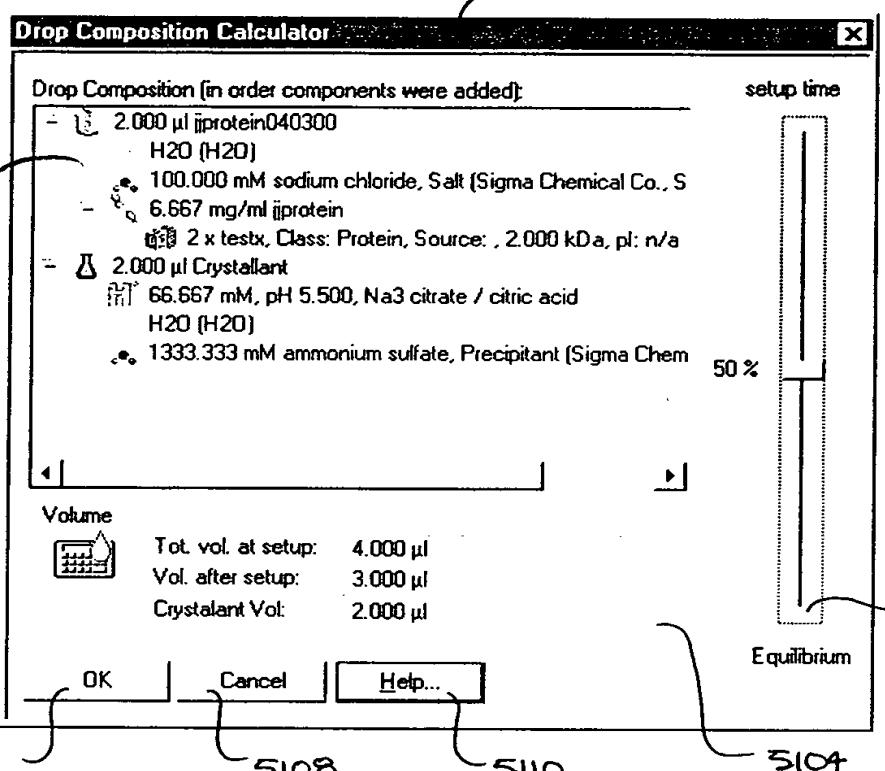


Fig. 50



09631485-000200

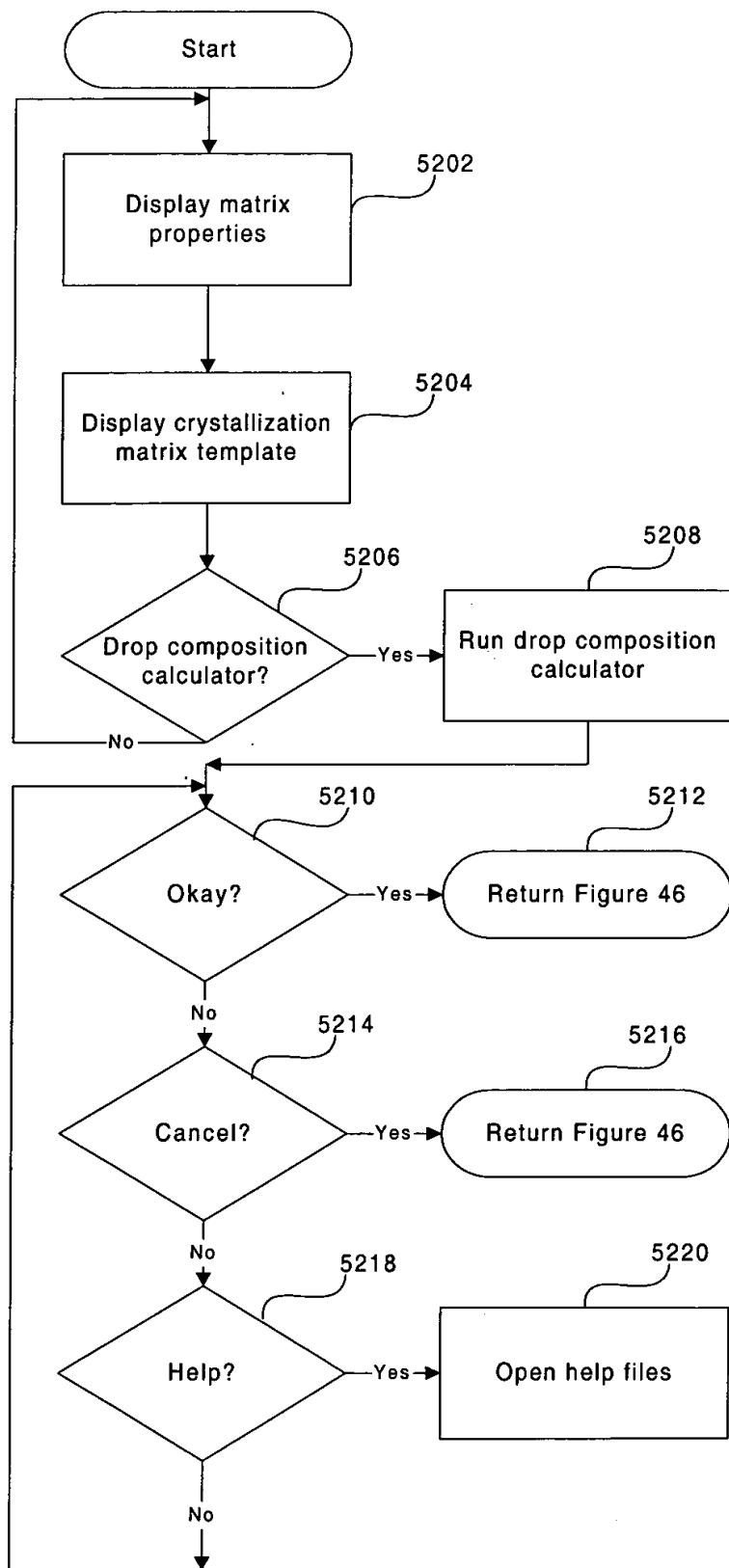


FIGURE 52

DOCUMENTS - DECODED

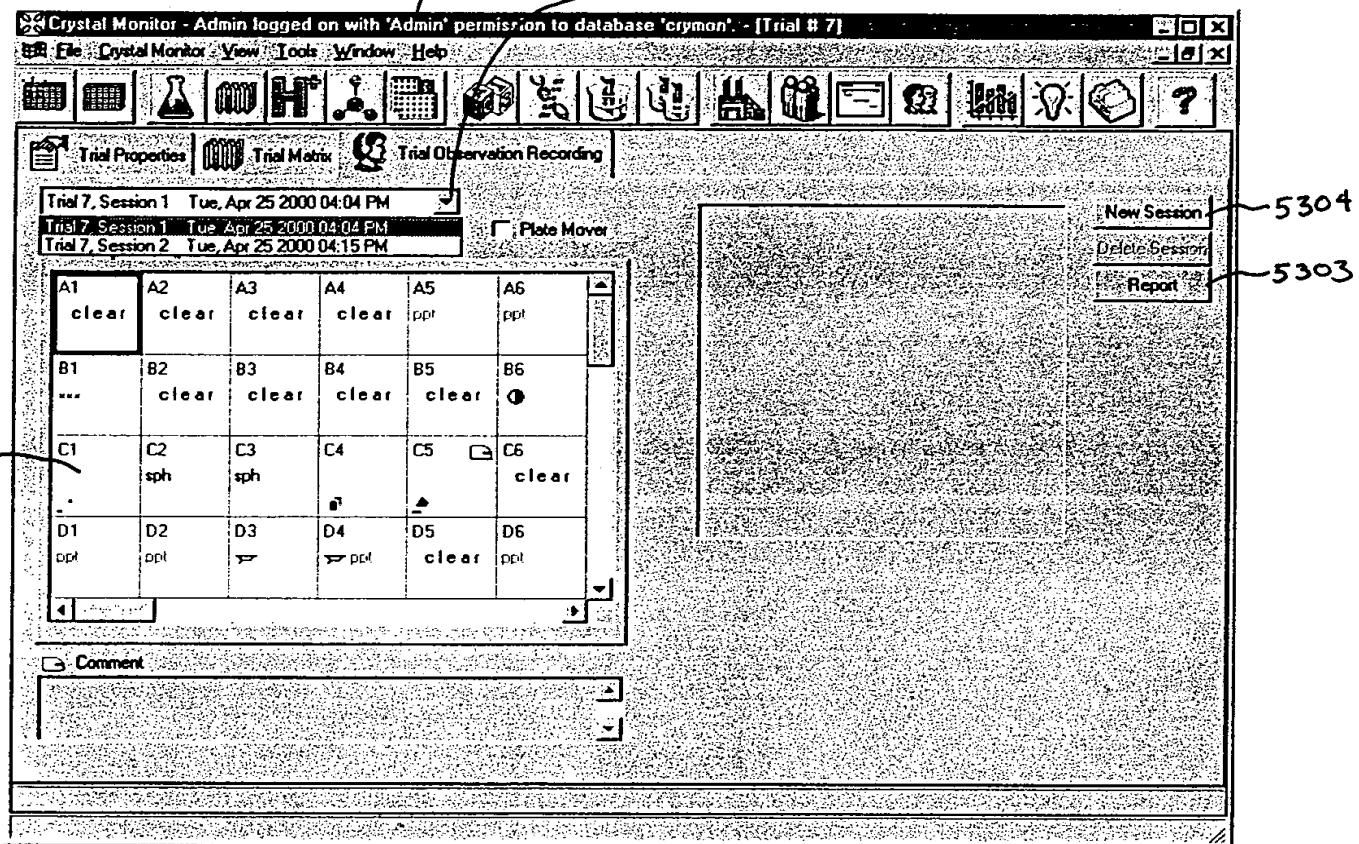


Fig. 53

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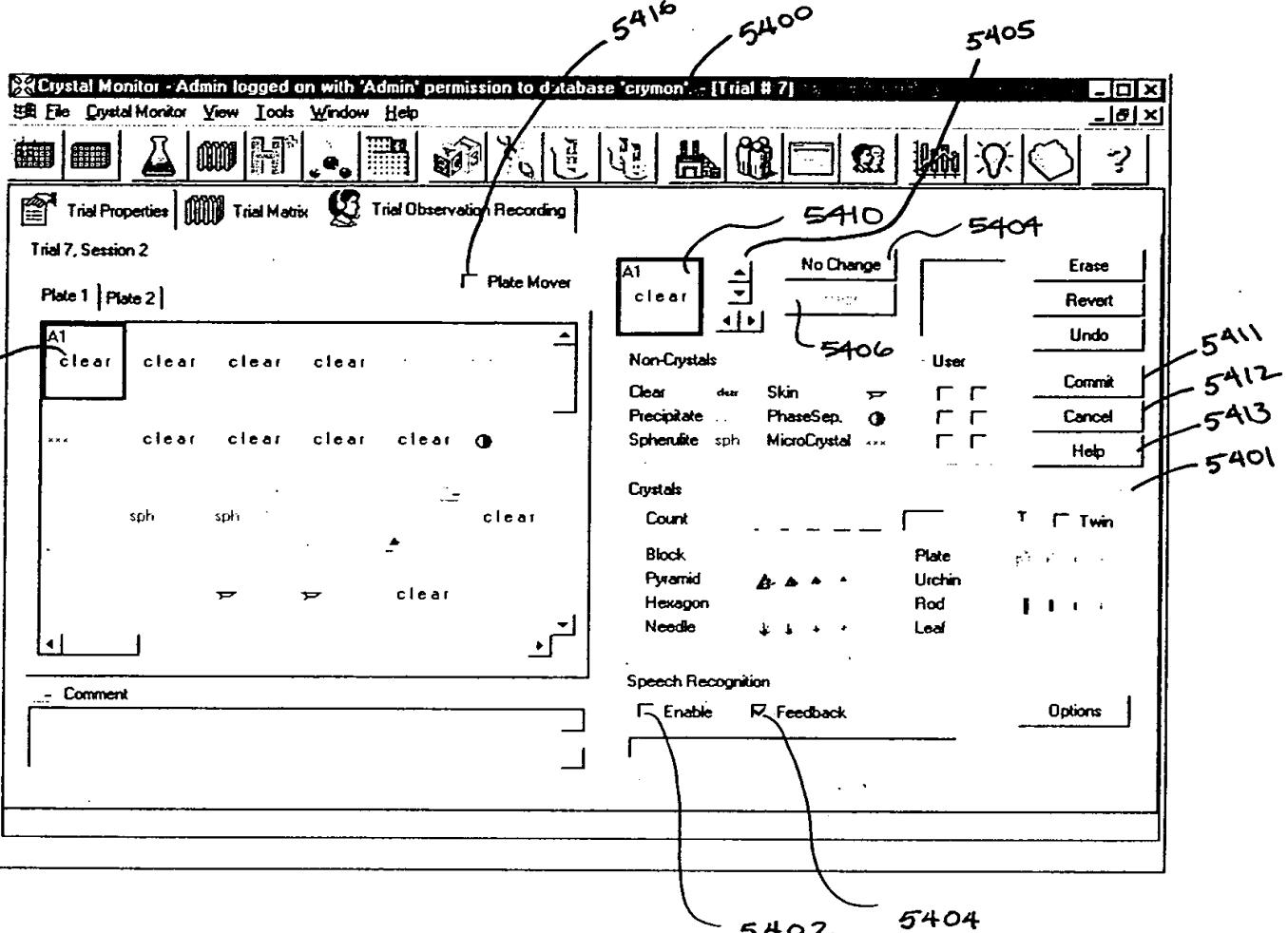
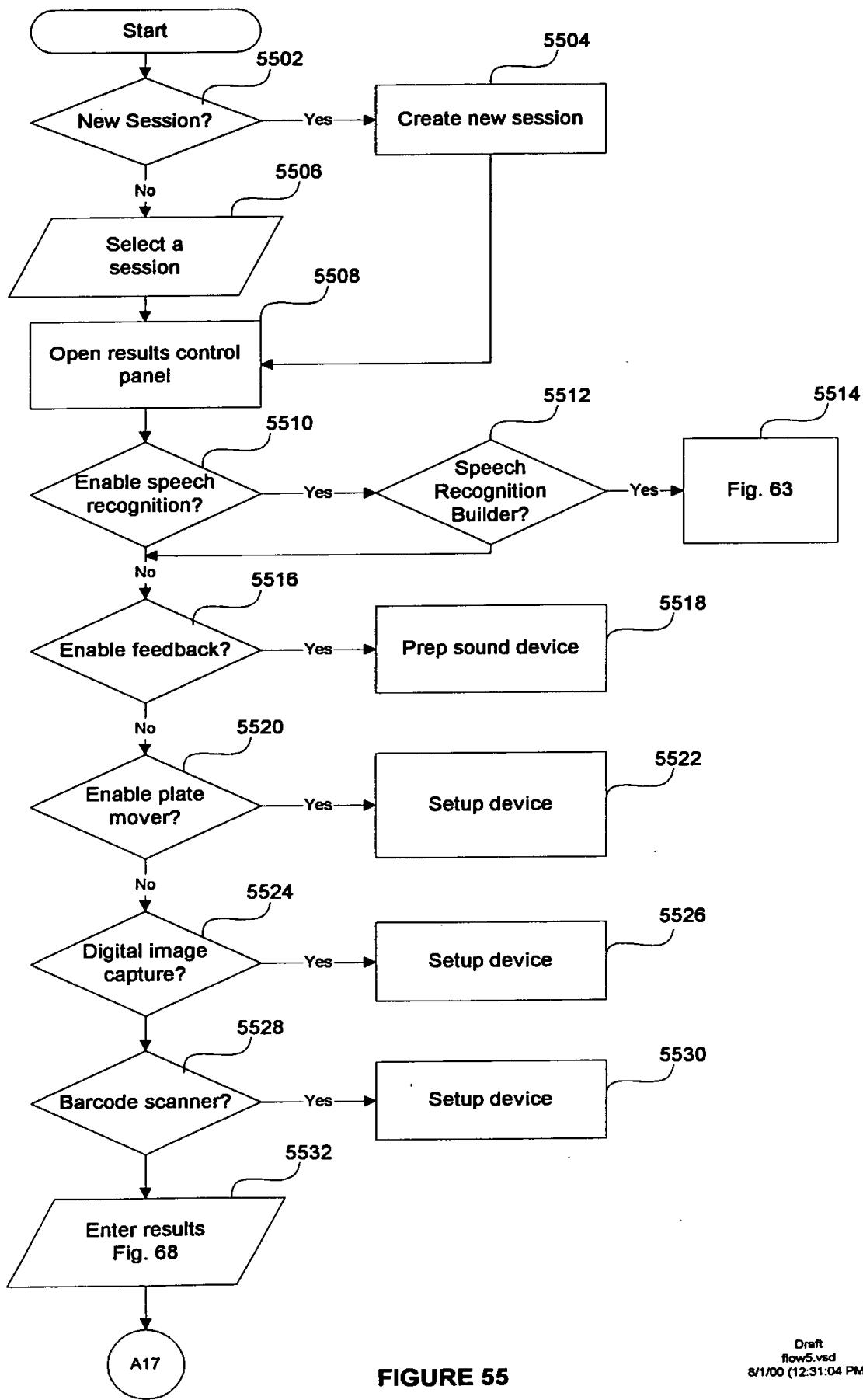


Fig. 54

**FIGURE 55**

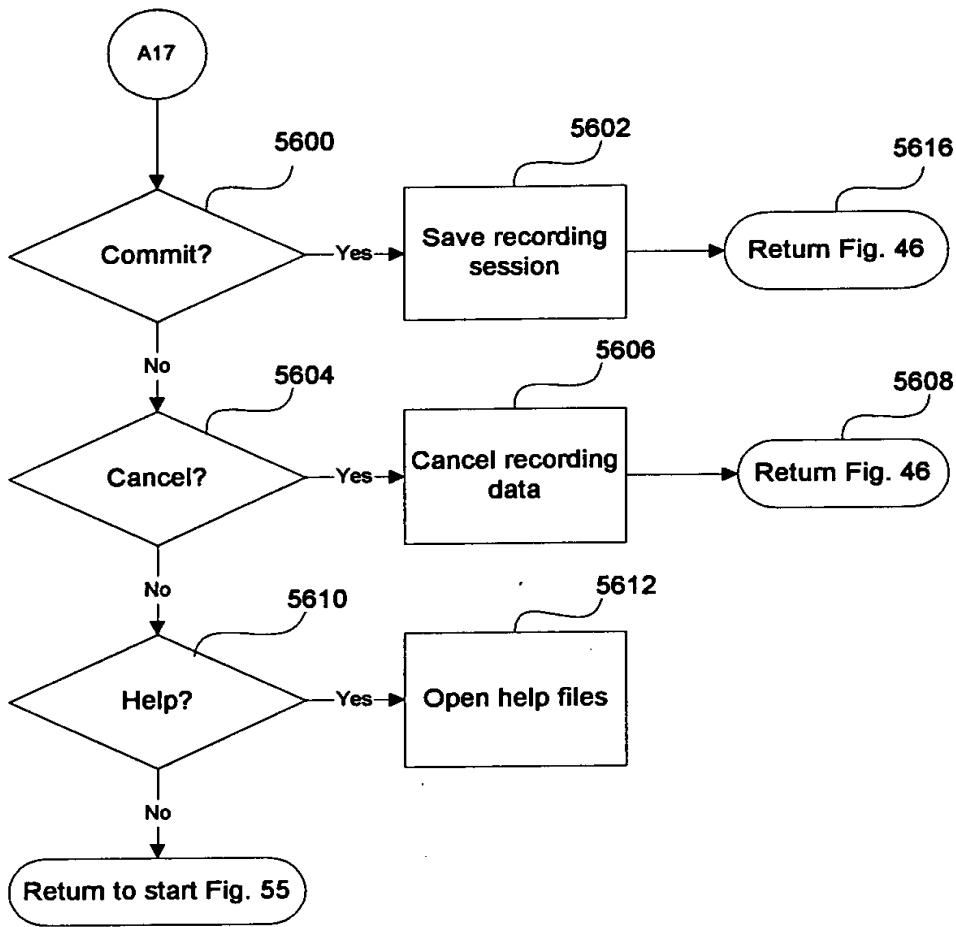


FIGURE 56

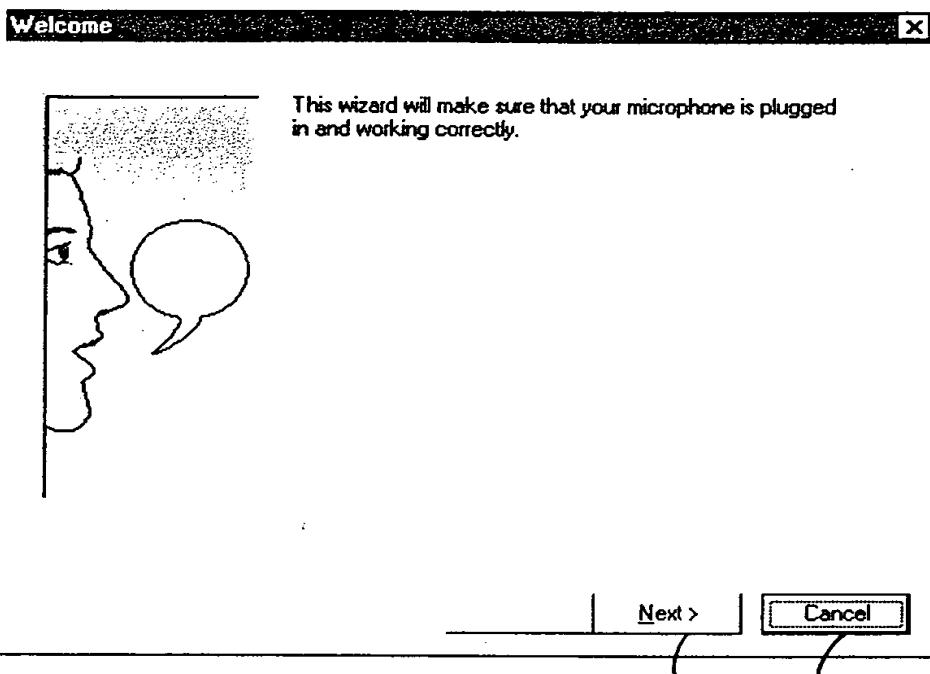


Fig. 57

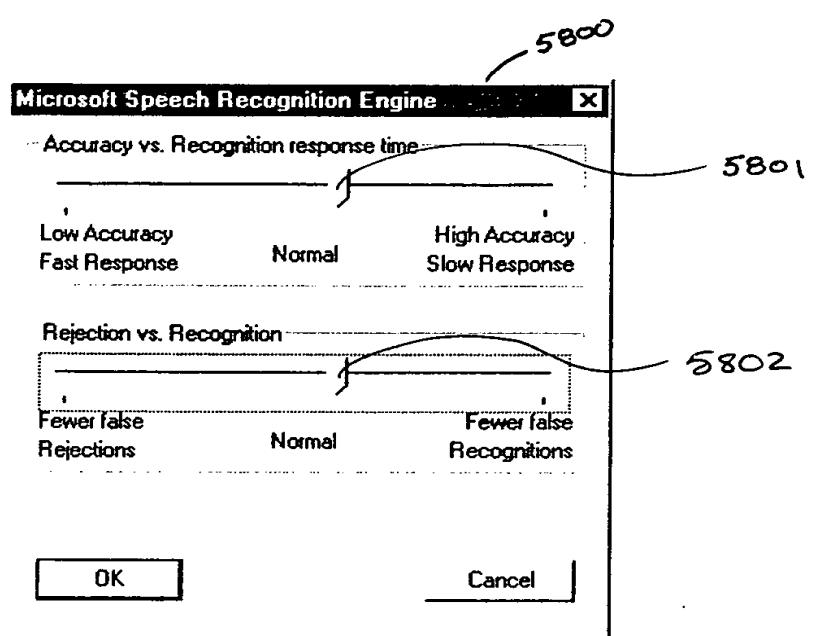


Fig. 58

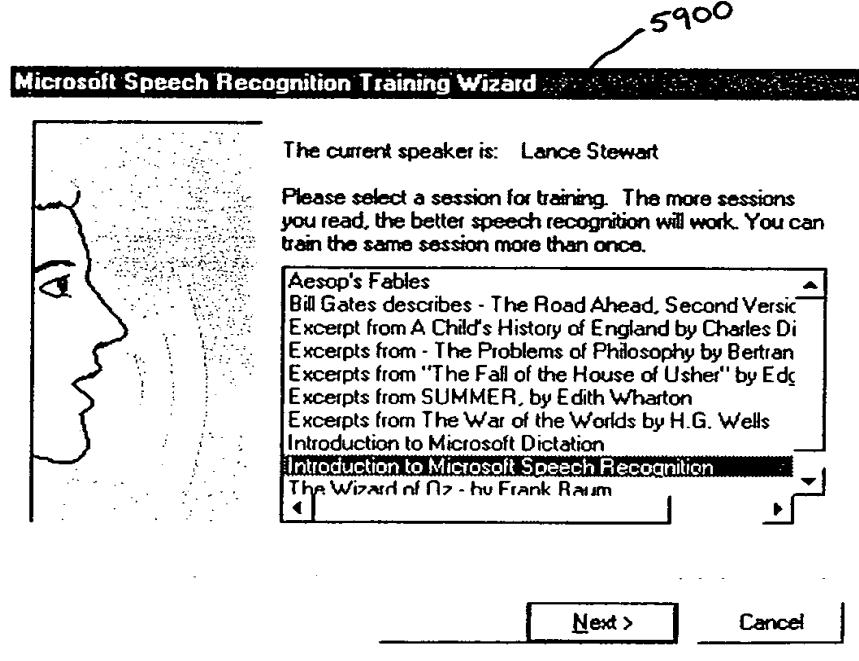


Fig. 59

6001 6000 6002 6004

Name	Voice Command	Feedback	
<Next>	Next	IDR_WAVE_VCMDNEXT	
<Back>	Back	IDR_WAVE_VCMDBACK	
<Up>	Well Up	Well Up	
<Down>	Well Down	Well Down	
<Left>	Well Left	Well Left	
<Right>	Well Right	Well Right	
<Clear>	Clear	IDR_WAVE_VCMDCLEAR	
<Precipitate>	Precipitate	Precipitate	
<Spherulite>	Spherulite	Spherulite	
<Skin>	Skin	Skin	
<PhaseSeparation>	PhaseSeparation	PhaseSeparation	
<MicroCrystal>	MicroCrystal	MicroCrystal	
<Block>	Block	Block	
<BlockBig>	Big Block	Big Block	
<BlockMedium>	Medium Block	Medium Block	
<BlockSmall>	Small Block	Small Block	
<BlockTiny>	Tiny Block	Tiny Block	

Fig. 60

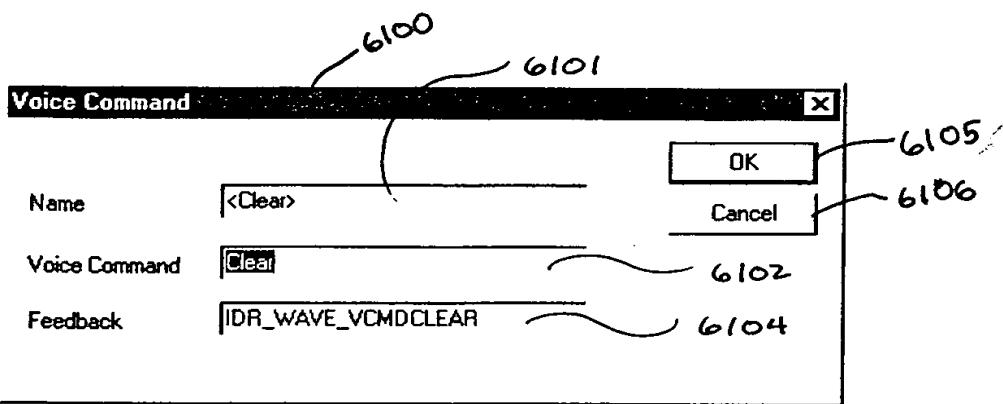


FIG. 61

00631185-030200

6200

Name	Voice Command	Feedback	
<Down>	Well Down	Well Down	
<Left>	Well Left	Well Left	
<Right>	Well Right	Well Right	
<FirstWell>	First Well	First Well	
<LastWell>	Last Well	Last Well	
<Clear>	clear	IDR_WAVE_VCMDCLEAR	
<Precipitate>	Precipitate	Precipitate	
<Spherulite>	Spherulite	Spherulite	
<Skin>	Skin	Skin	
<PhaseSeparation>	PhaseSeparation	PhaseSeparation	
<MicroCrystal>	MicroCrystal	MicroCrystal	
<User1>	flocculent	flocculent	
<User2>	heavy	heavy	
<User3>	granular	granular	
<Block>	Block	Block	
<BlockBig>	Big Block	Big Block	
<BlockMedium>	Medium Block	Medium Block	

FIG. 62

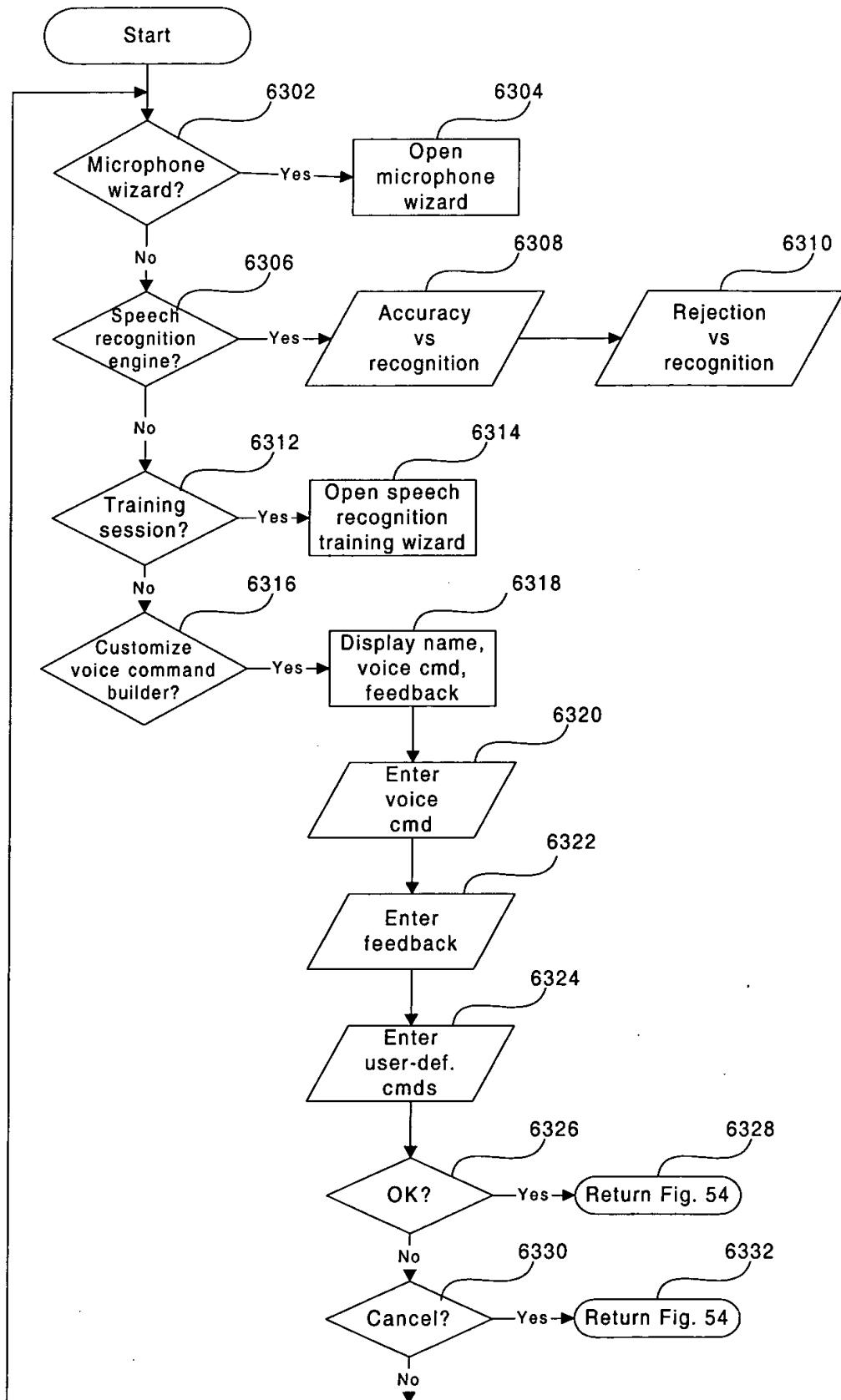
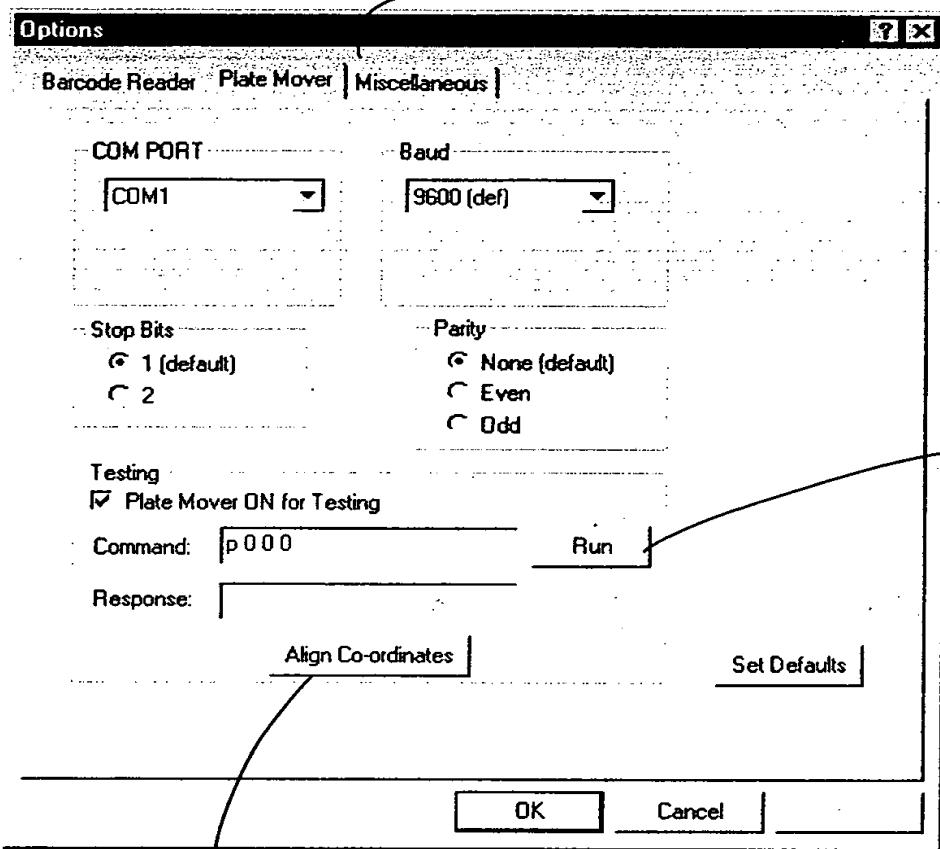


FIGURE 63



6402 Fig. 64

6401

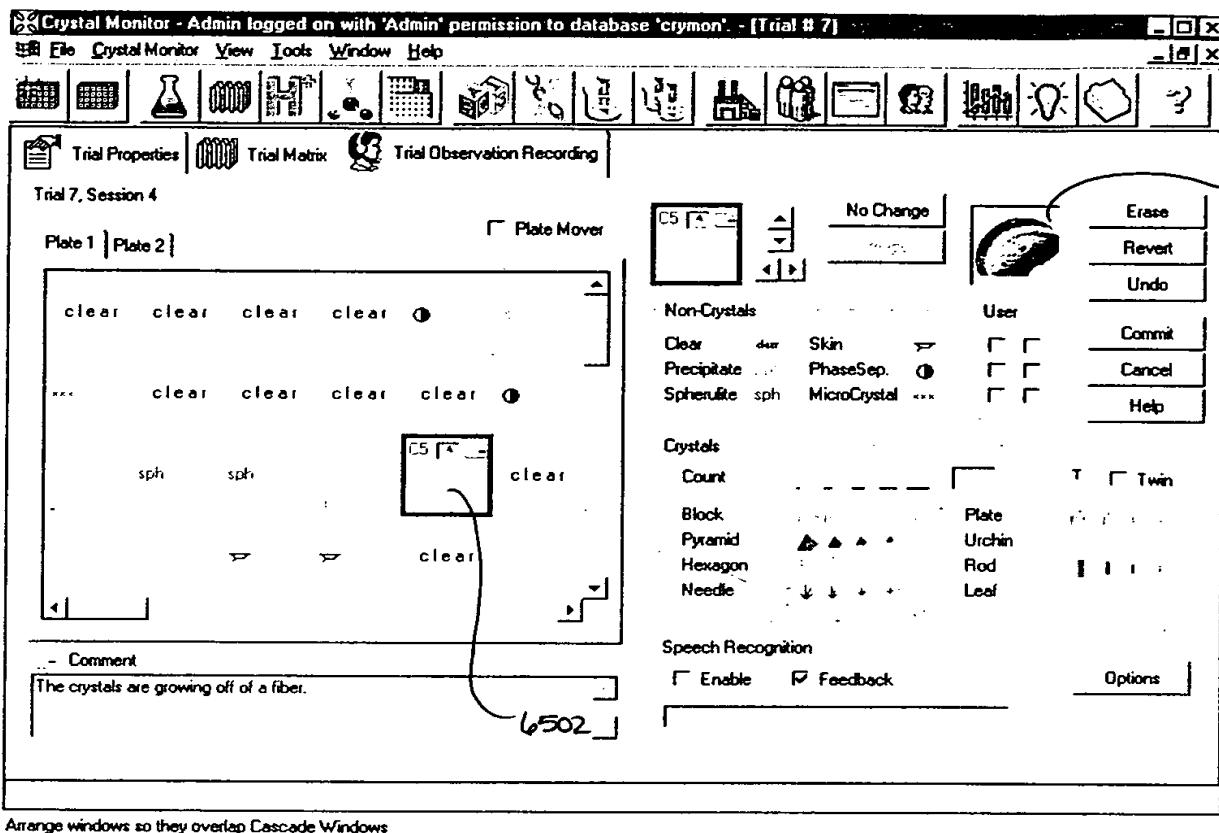


Fig. 65

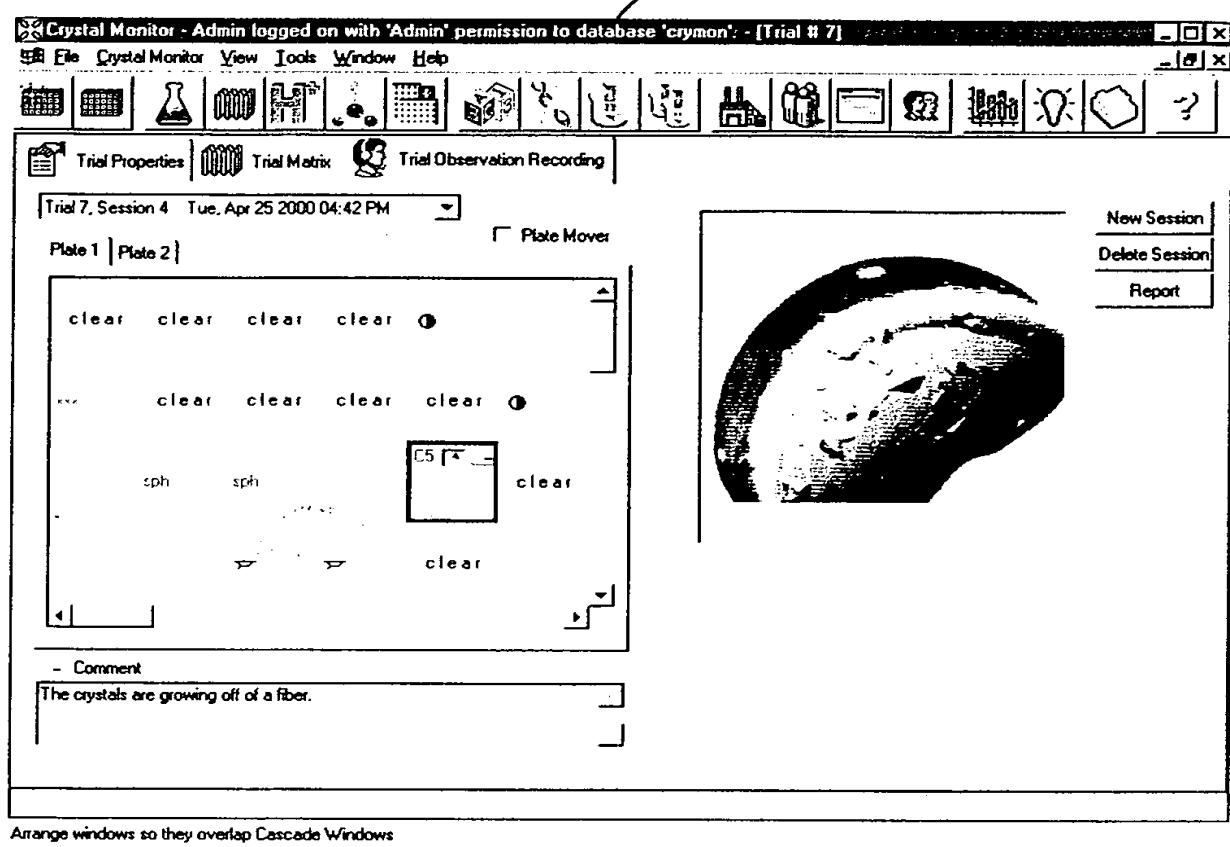


Fig. 66

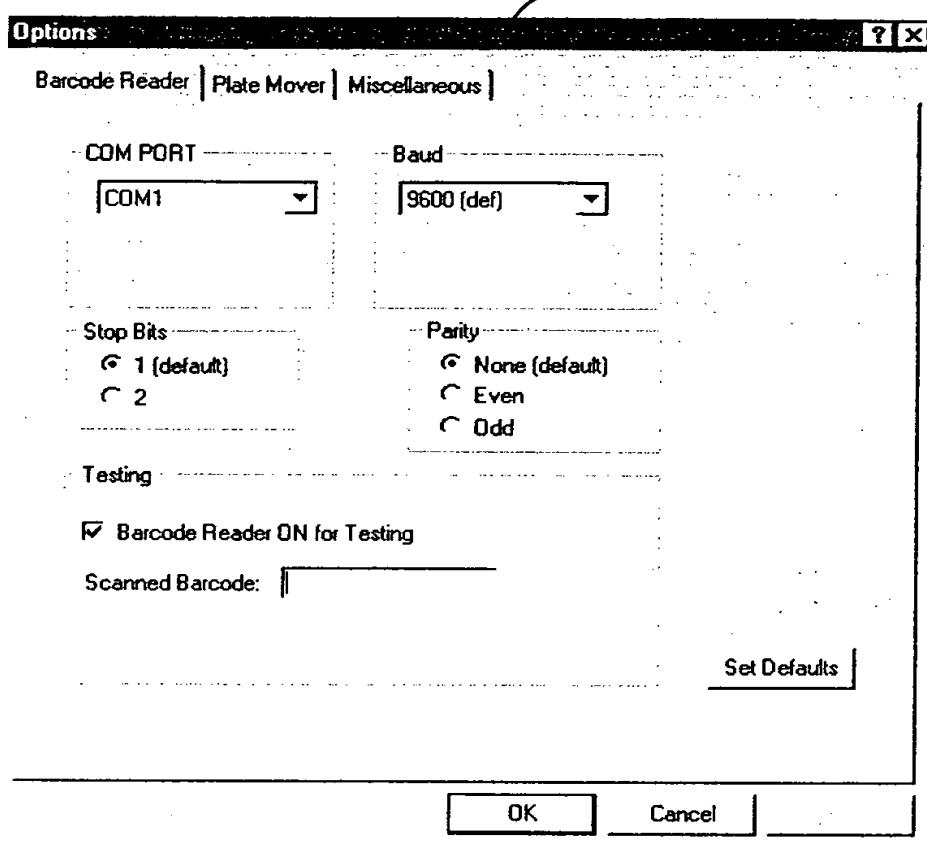


FIG. 67

000000000000000000000000

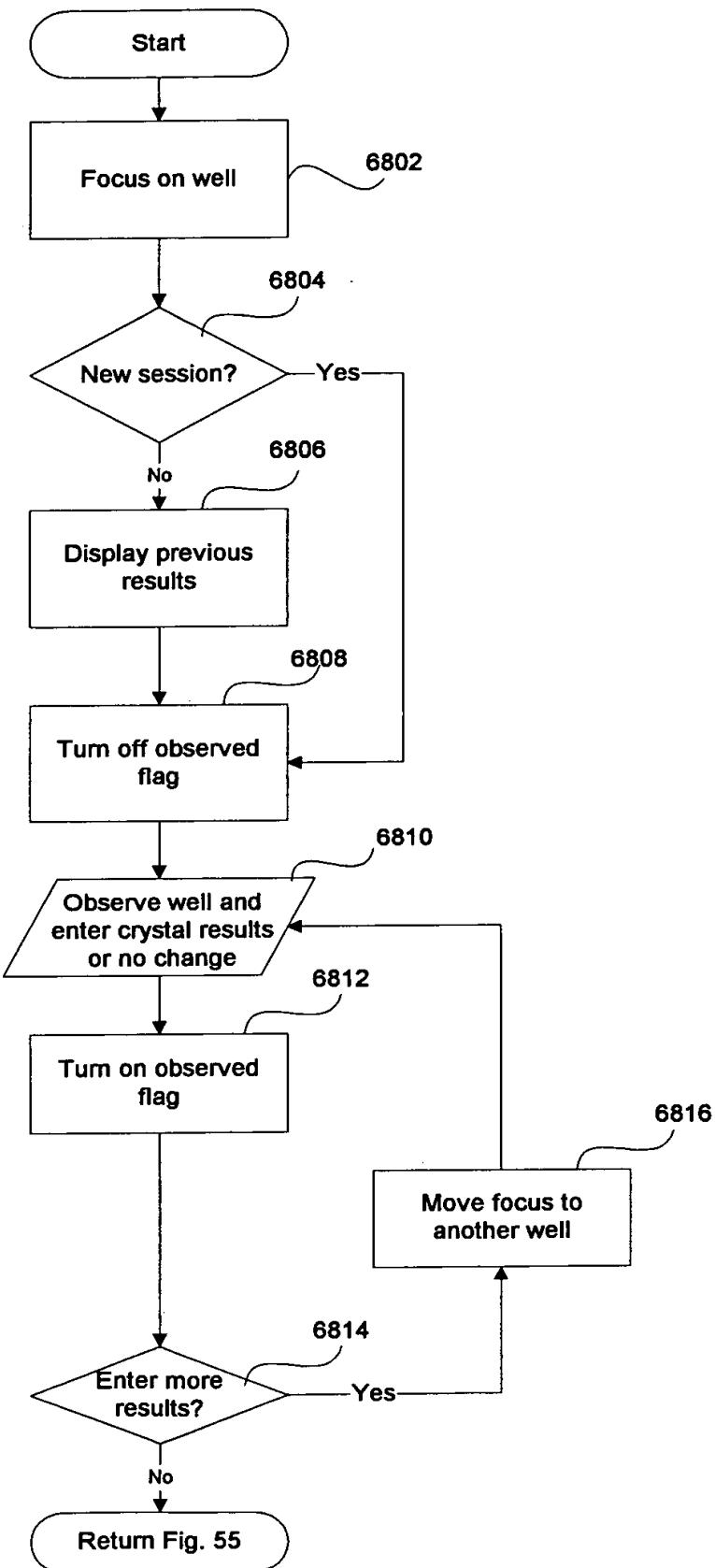
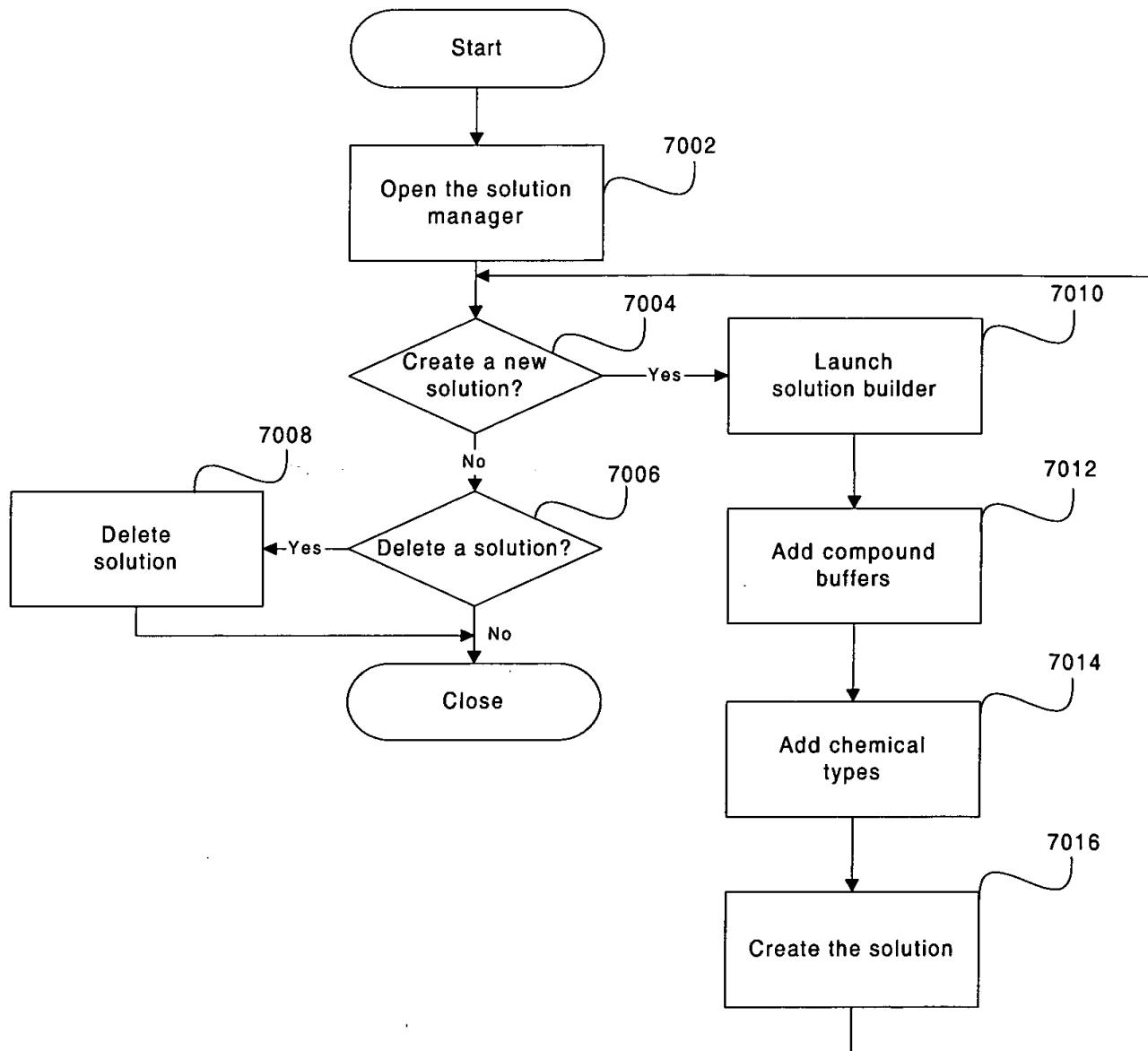


FIGURE 68

000624485-0000200

clear clear clear clear ○
xxx clear clear clear clear ○
sph sph clear
F clear

FIG. 49

**FIGURE 70**

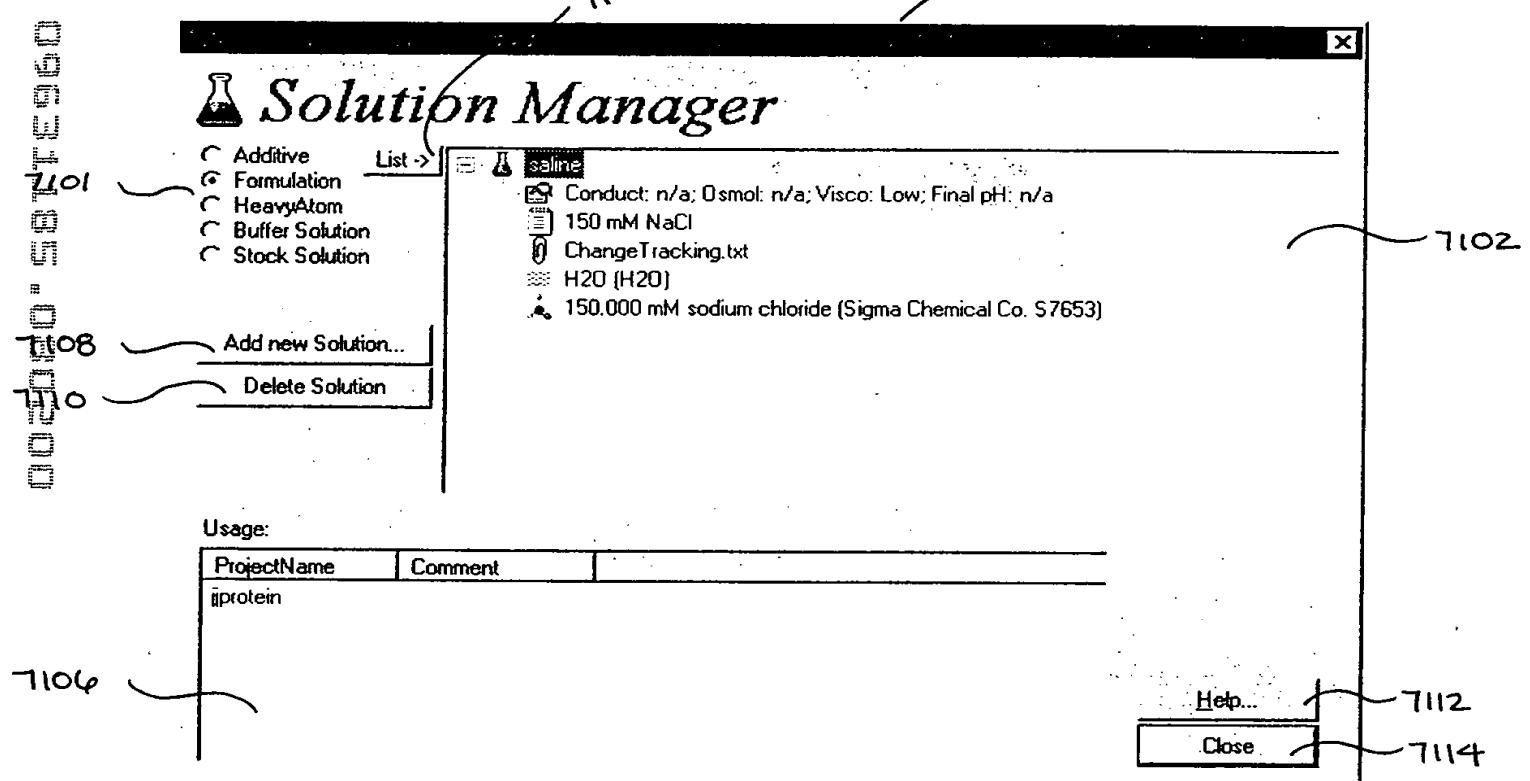


Fig. 71

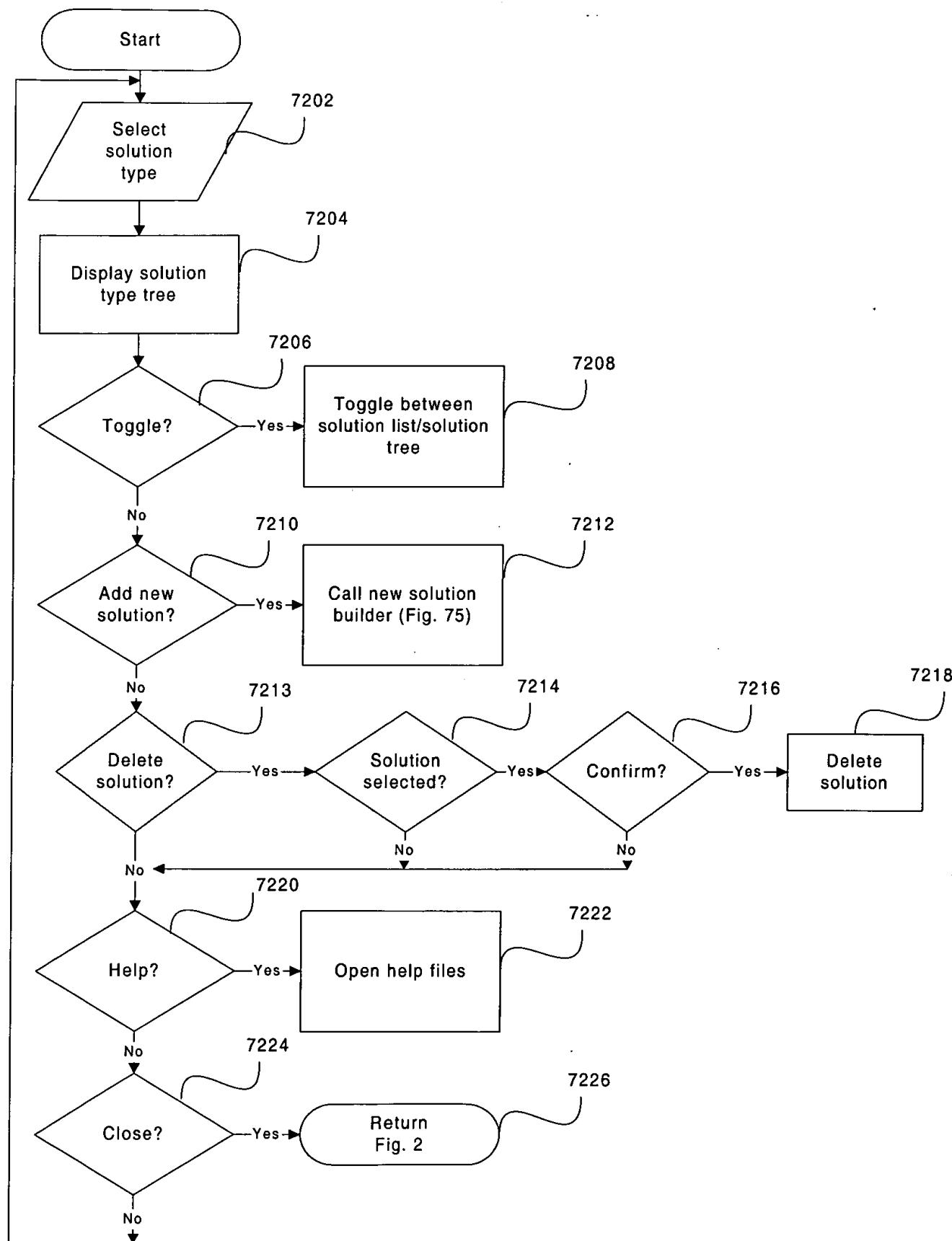


FIGURE 72

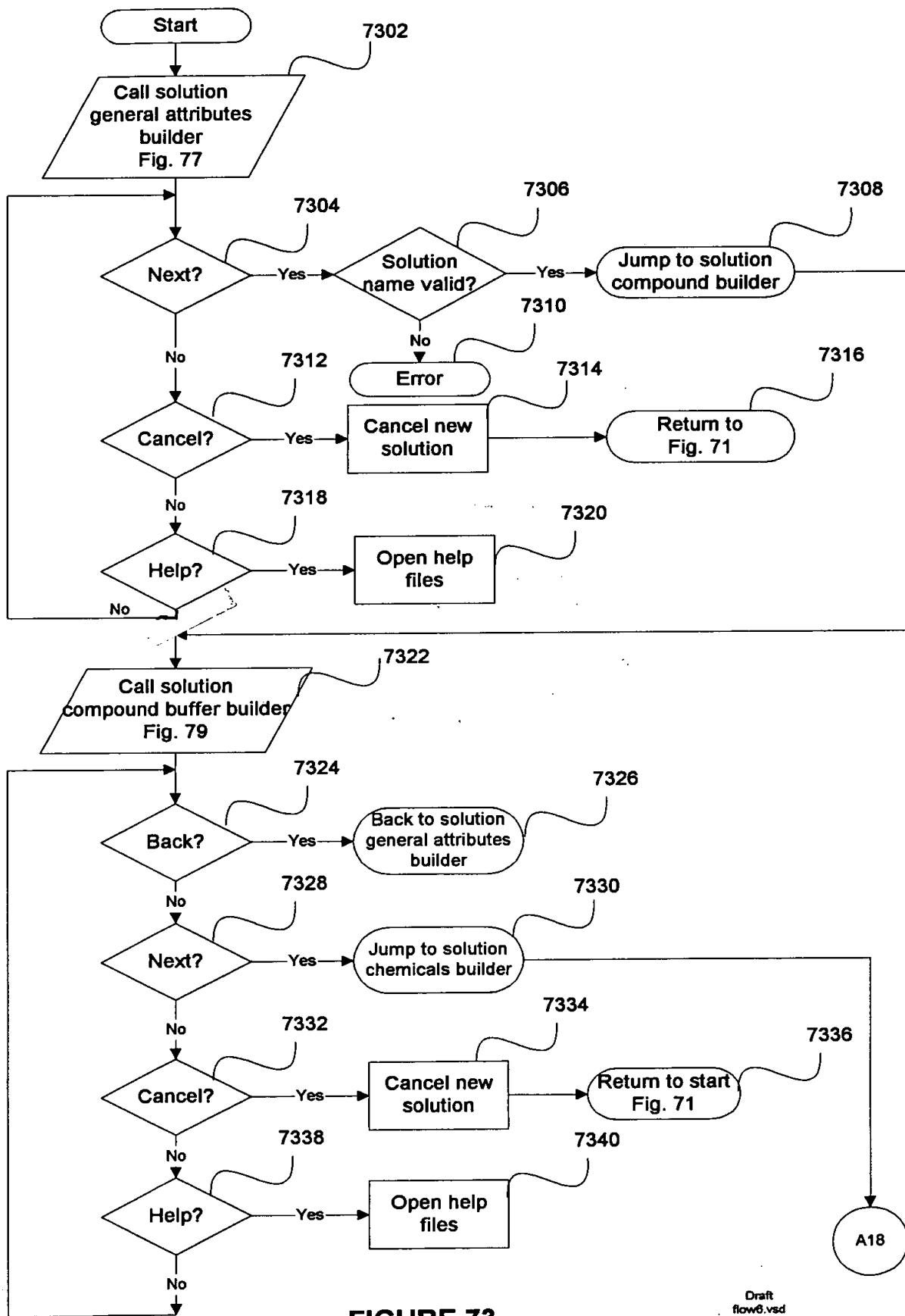


FIGURE 73

0002080 - 0002080

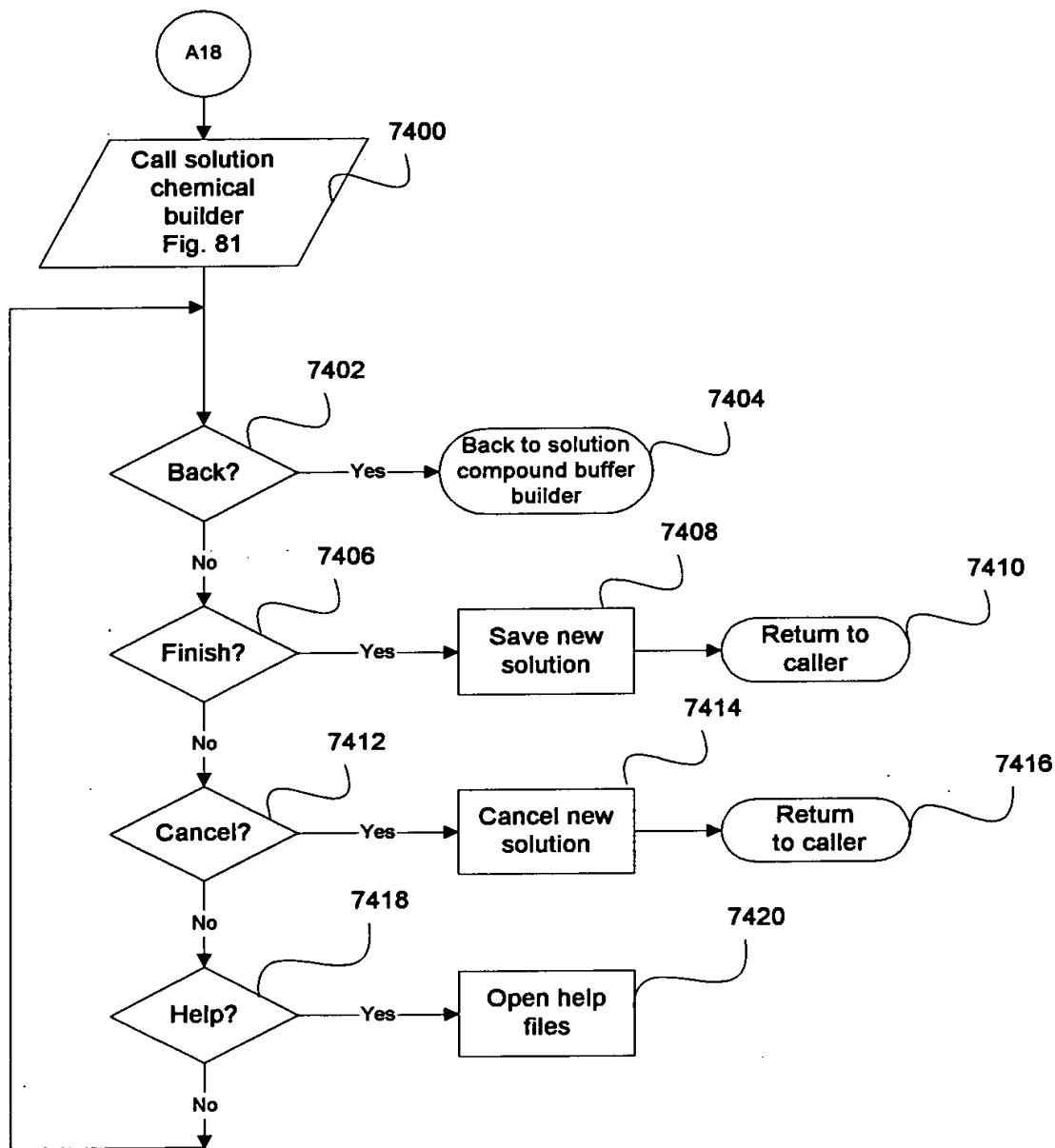


FIGURE 74

09631185 · 080200

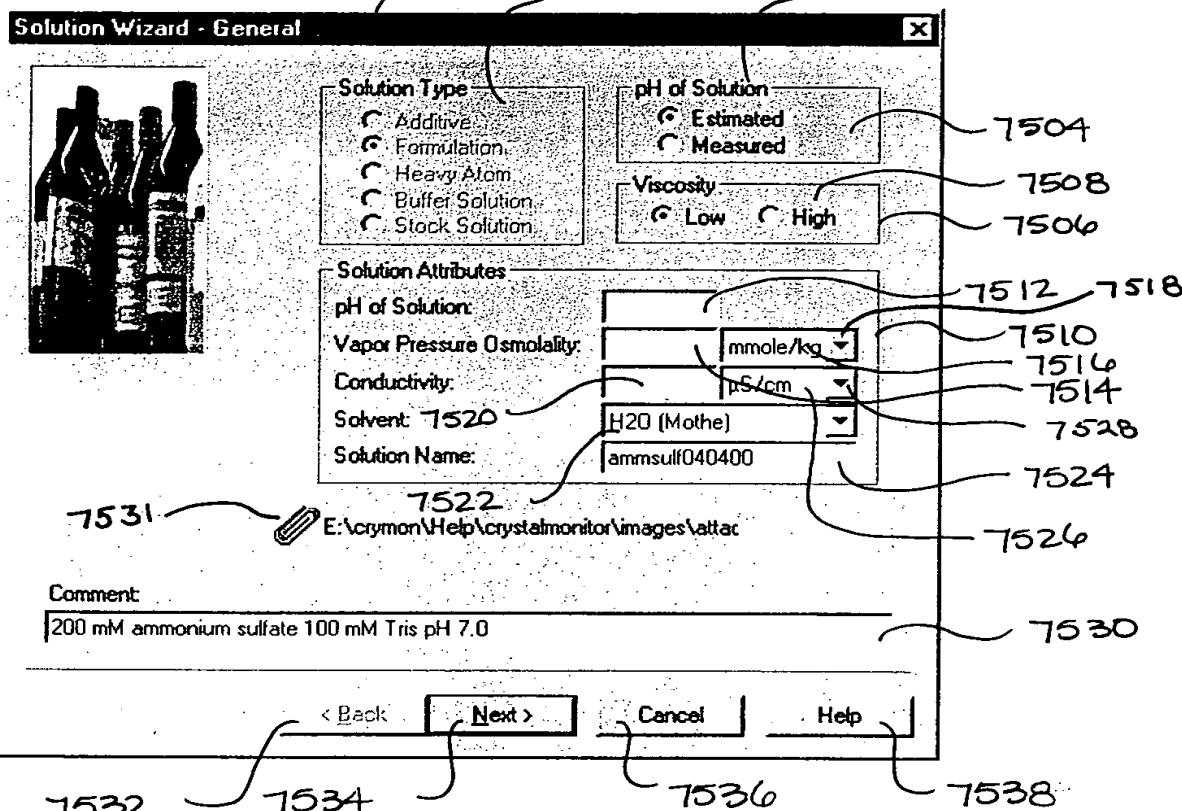


Fig. 75

1600

Microsoft Excel - attachmentexample						
<input type="button" value="File"/> <input type="button" value="Edit"/> <input type="button" value="View"/> <input type="button" value="Insert"/> <input type="button" value="Format"/> <input type="button" value="Tools"/> <input type="button" value="Data"/> <input type="button" value="Window"/> <input type="button" value="Help"/>						
	1	2	3	4	5	6
1	ammonium sulfate storage solution					
2						
3	molecular weight	132				
4	total volume (ml)	1000				
5	concentration (mM)	200				
6						
7	amount to use (g)	26.4				
8						
9						

Sheet1 Sheet2 Sheet3

Fig. 76

0000110010000000

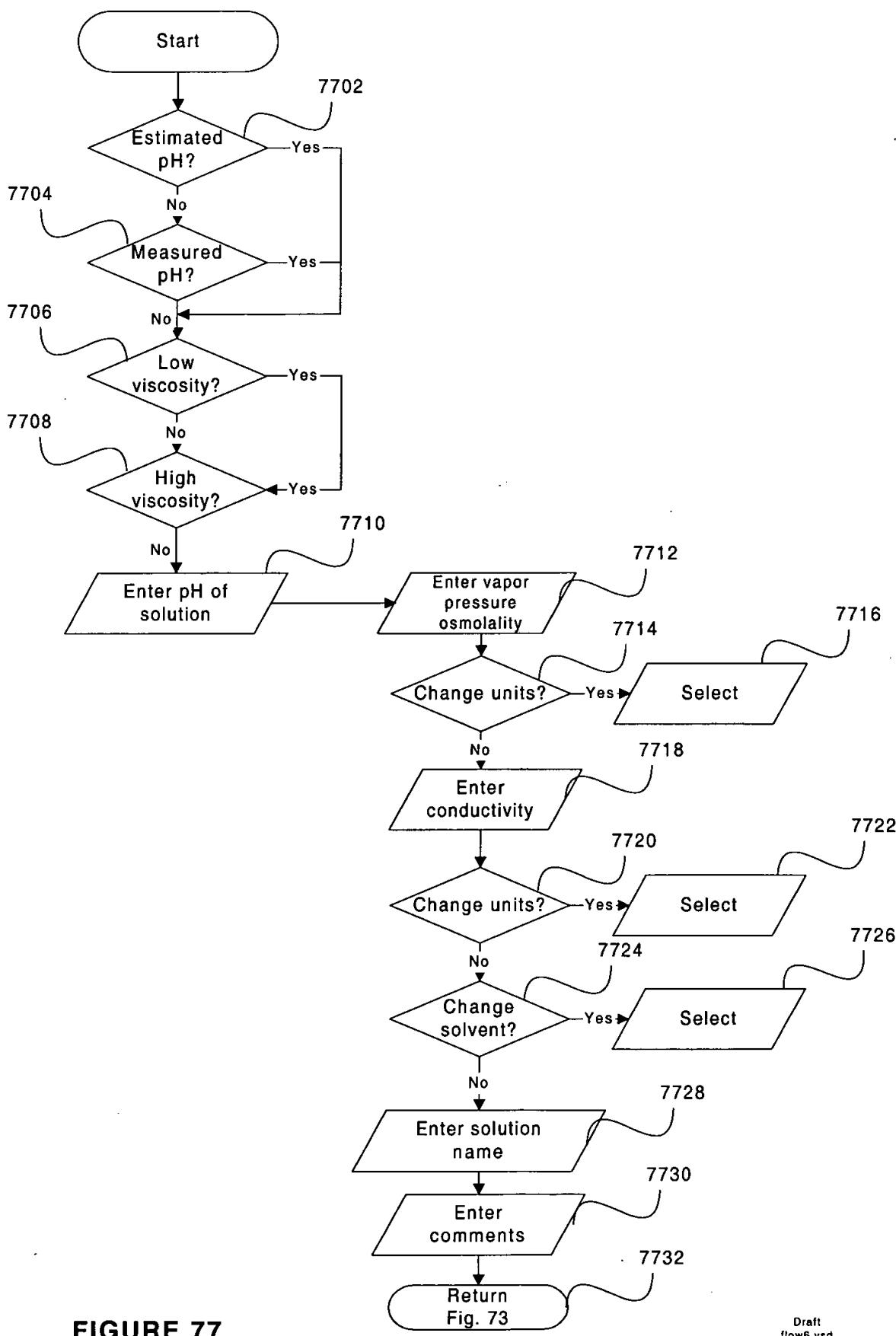


FIGURE 77

000000000000000000000000

7800

Compound Buffer Source List:				
Buffer PH	Buffering Agent	pH Conjugate	Comme ▾	
6.50	sodium cacodylic acid trihydr...	hydrochloric acid (HCl)	Na cac	
6.50	2-morpholinoethanesulfonic a...	sodium hydroxide (NaOH)	MES-N	
7.00	1,3-diaza-2,4-cyclopentadien...	hydrochloric acid (HCl)	imidazc	
7.00	sodium cacodylic acid trihydr...	hydrochloric acid (HCl)	Na cac	
7.00	4-(2-hydroxyethyl)piperazine-1...	sodium hydroxide (NaOH)	HEPES	
7.00	tris(hydroxymethyl)aminometh...	hydrochloric acid (HCl)	Tris-HCl	
7.50	N-(2-hydroxyethyl)piperazine-1...	sodium hydroxide (NaOH)	HEPES	
7.50	4-(2-hydroxyethyl)piperazine-1...	sodium hydroxide (NaOH)	HFPFC	

Solution Buffer List:				
Buffer PH	Concentration	Buffering Agent	pH Conjugate	Commer
7.00	100.000 mM	tris(hydroxymethyl)am...	hydrochloric acid (HCl)	Tris-HCl

Add Remove

7804 7804

7802

7808 7810 7812 7814

Fig. 78

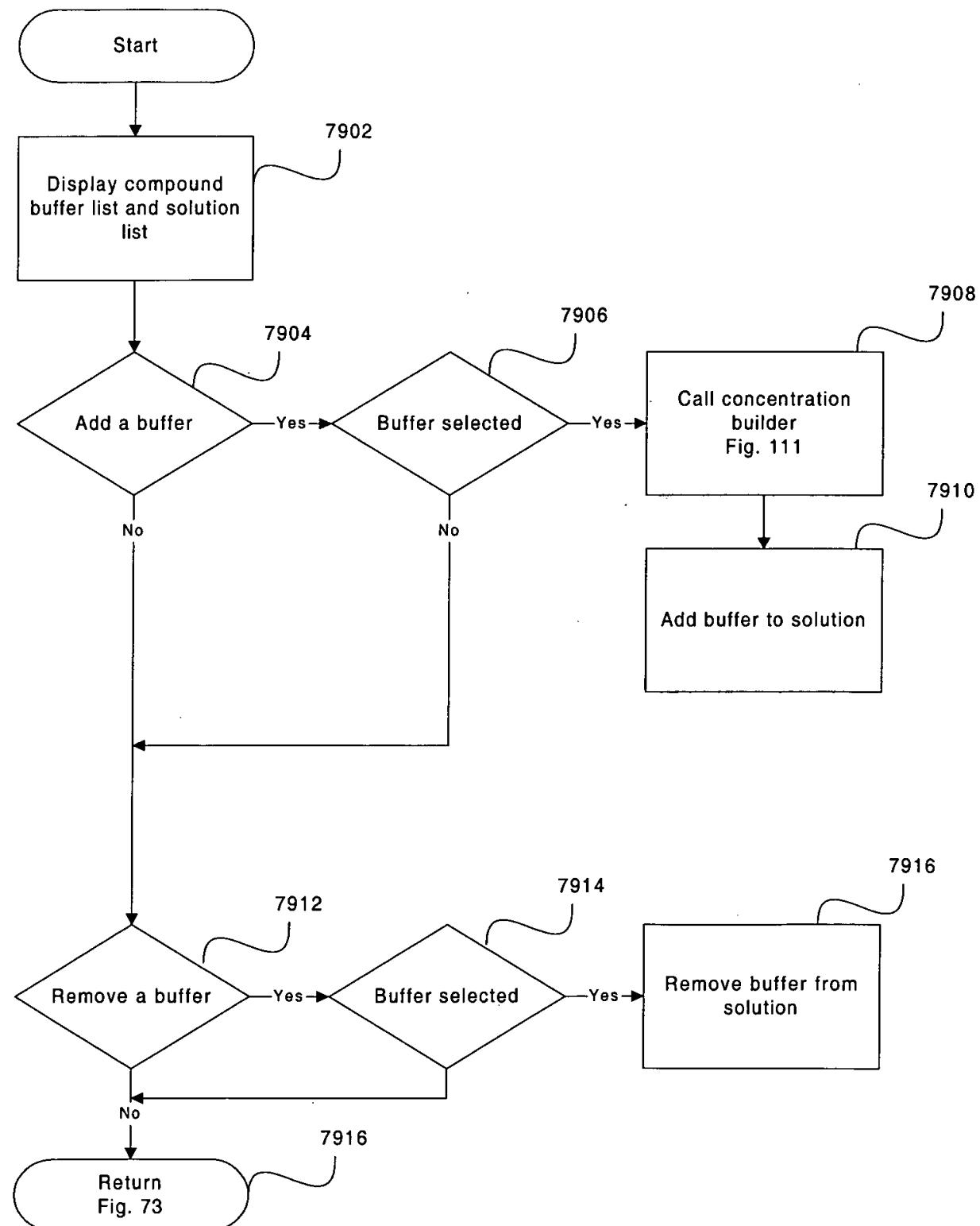


FIGURE 79

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8000

Formulation: ammsulf040400

Category:	Chemical Name	Formula
Buffering Agent	ammonium chloride (NH ₄ chloride)	NH ₄ Cl
Chelator	ammonium dihydrogen phosphate (NH ₄ H ₂ phospho...)	NH ₄ H ₂ PO ₄
CryoCoolant	ammonium formate (NH ₃ formate)	CH ₂ O ₂
CSI	ammonium nitrate (NH ₄ nitrate)	NH ₄ NO ₃
Detergent	ammonium phosphate dibasic ((NH ₄) ₂ H phospho...)	(NH ₄) ₂ HPO ₄
Gas	ammonium sulfate ((NH ₄) ₂ sulfate)	(NH ₄) ₂ SO ₄
HeavyAtomCompound	ammonium sulfate ((NH ₄) ₂ sulfate)	(NH ₄) ₂ SO ₄
Metal	ammonium sulfate ((NH ₄) ₂ sulfate)	(NH ₄) ₂ SO ₄
NucleationSuppressant	ammonium sulfate ((NH ₄) ₂ sulfate)	(NH ₄) ₂ SO ₄
Organic	ammonium sulfate ((NH ₄) ₂ sulfate)	(NH ₄) ₂ SO ₄
Other	ammonium sulfate ((NH ₄) ₂ sulfate)	(NH ₄) ₂ SO ₄
pHConjugate		
Precipitant		
ReducingAgent		
Salt		
Solvent		

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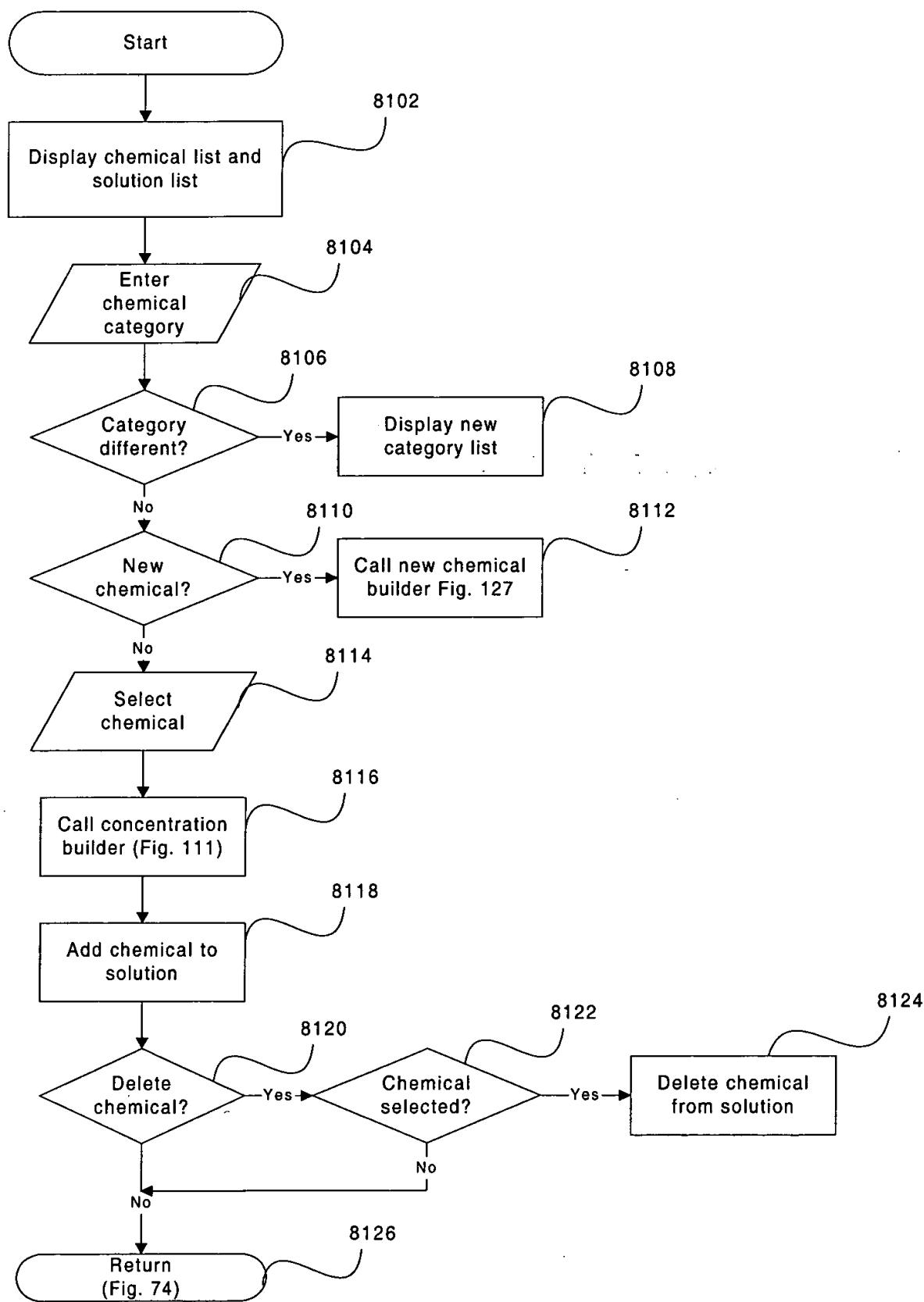


FIGURE 81

002000-COTTER060

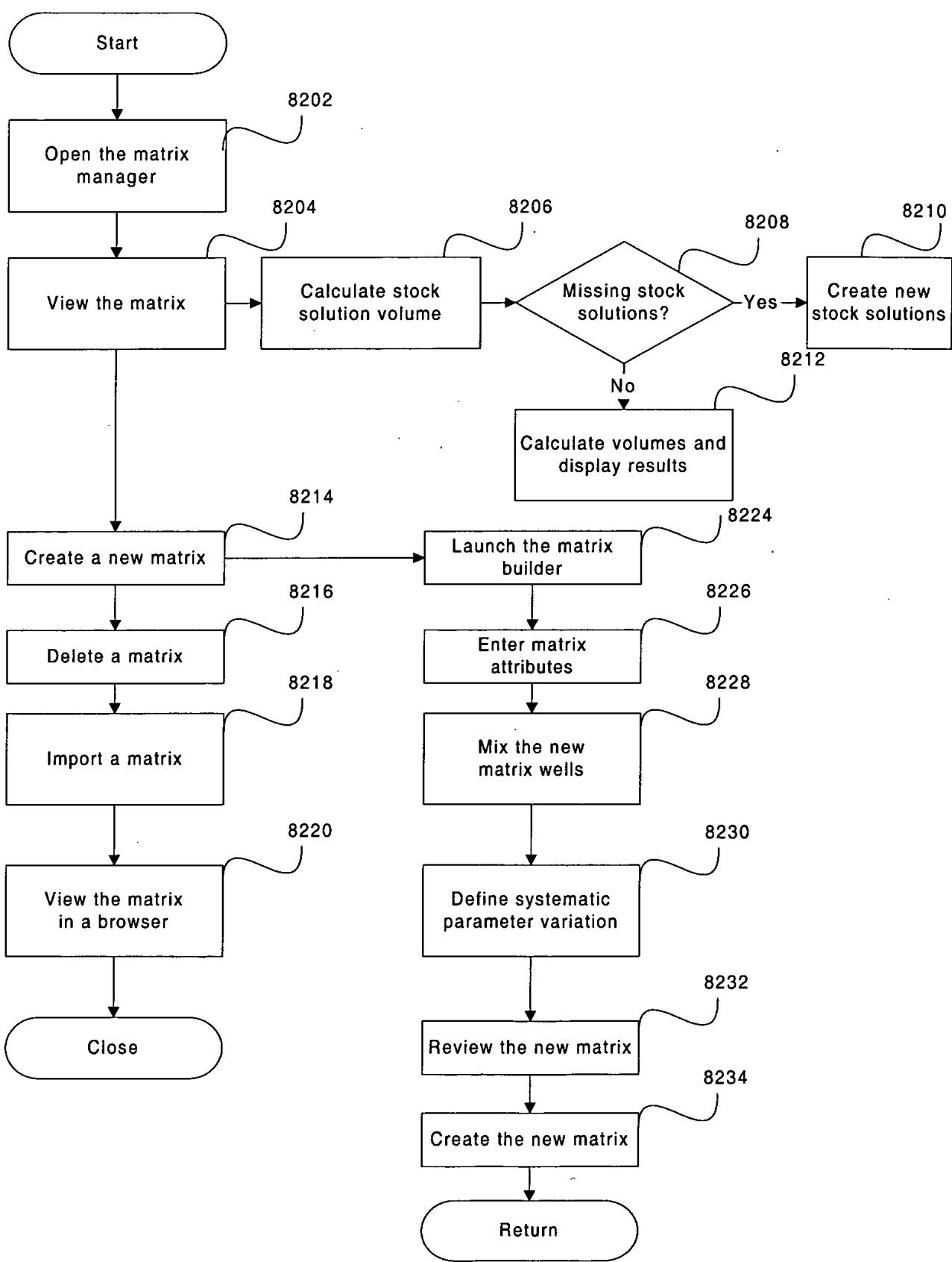


FIGURE 82

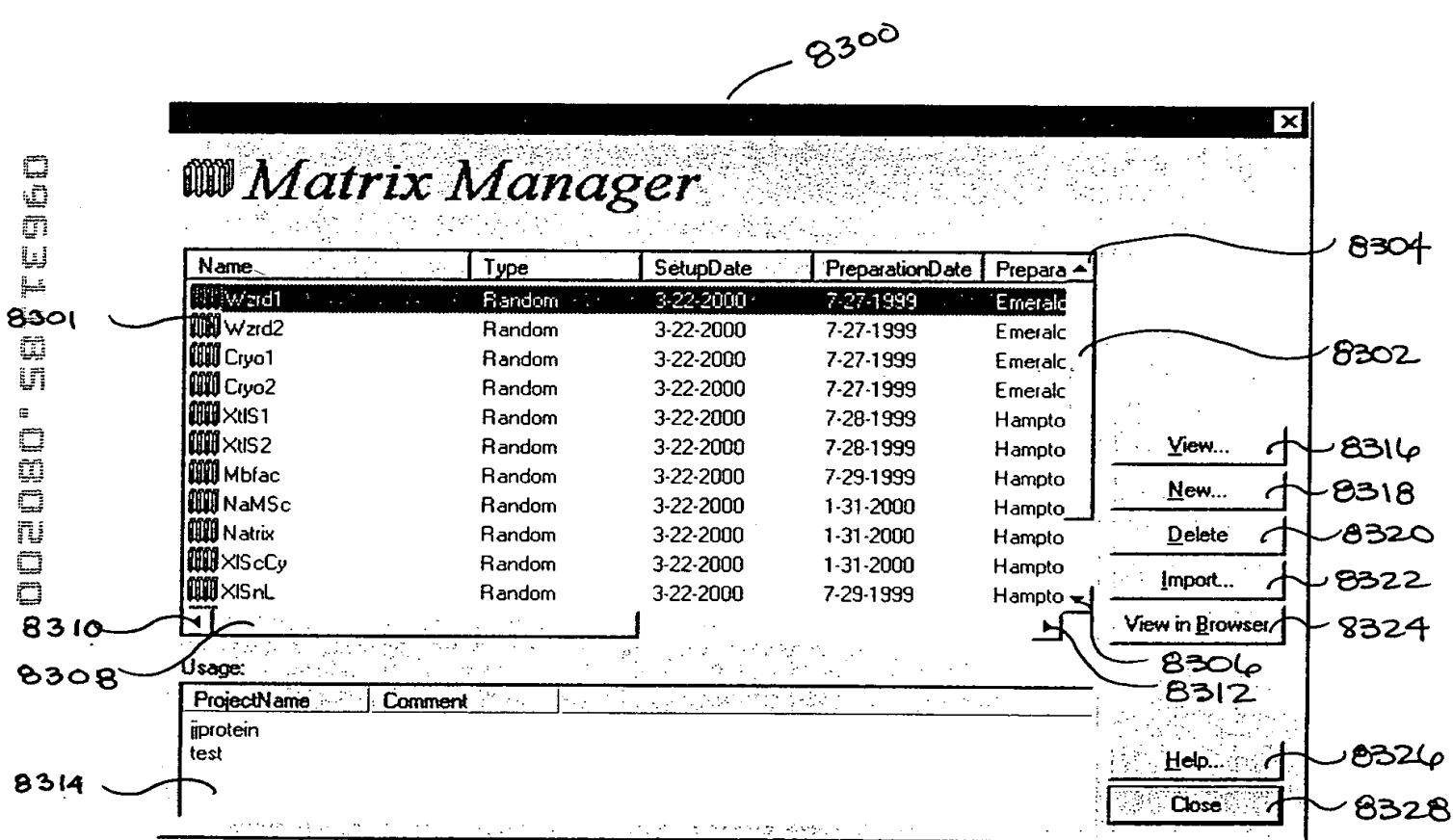


Fig. 83

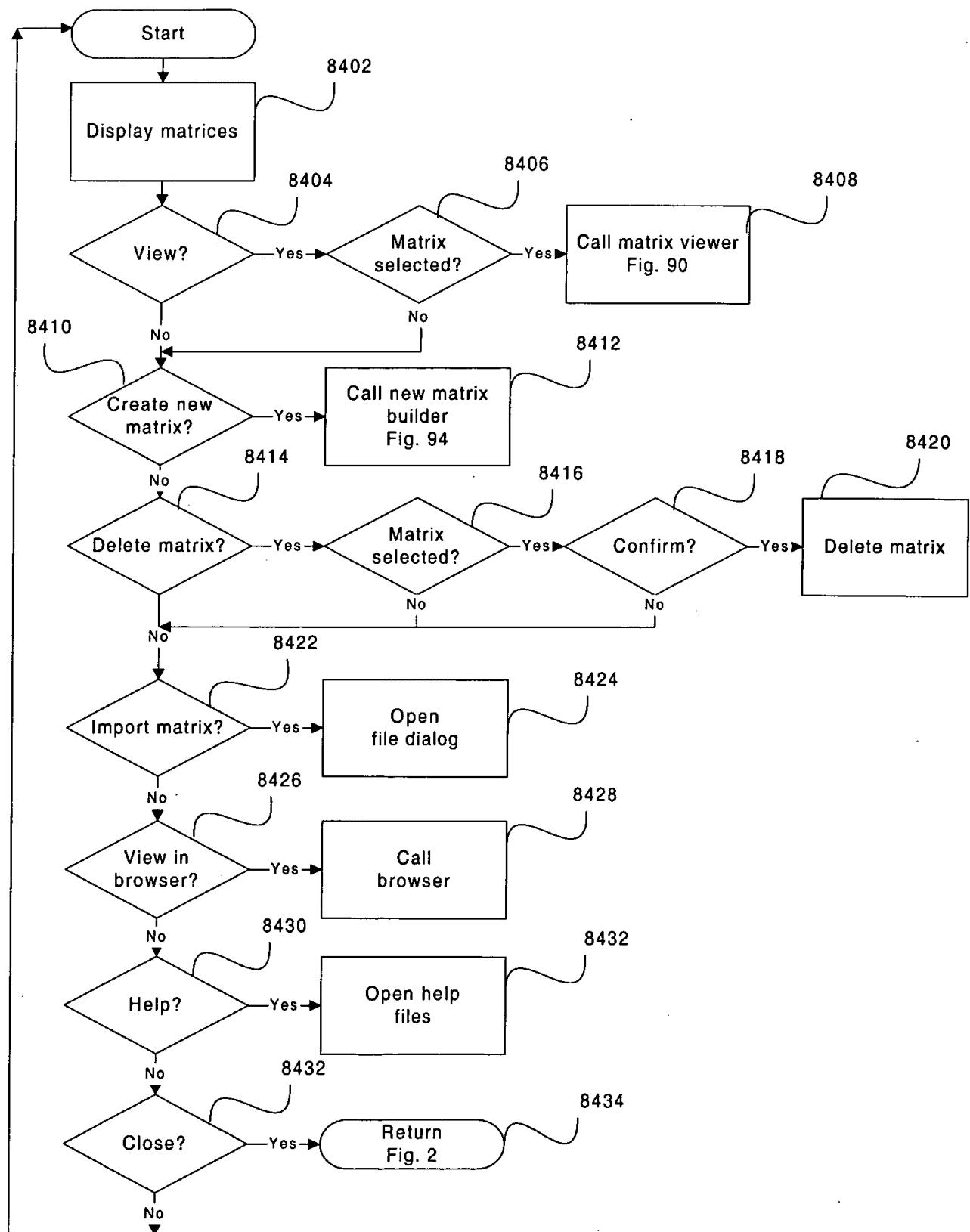
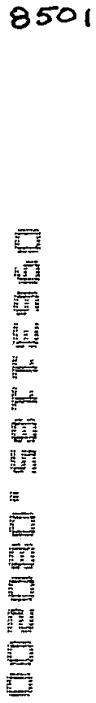


FIGURE 84



Matrix Viewer

(2)	(2)	(2)	(2)	(2)	(2)
(2)	(2)	(2)	(2)	(2)	(2)
(2)	(2)	(2)	(2)	(2)	(2)
(2)	(2)	(2)	(2)	(2)	(2)

Matrix Name: newsys061599

Matrix Type: Systematic

Commercial: No

Preparator: Admin

X-Axis (systematically varied): polyethylene glycol 200

Y-Axis (systematically varied): sodium chloride

Comment:

Calc. Stock Sol. Vol. needed

OK Cancel

8502 8504 8506

Fig. 85

09631185-080200

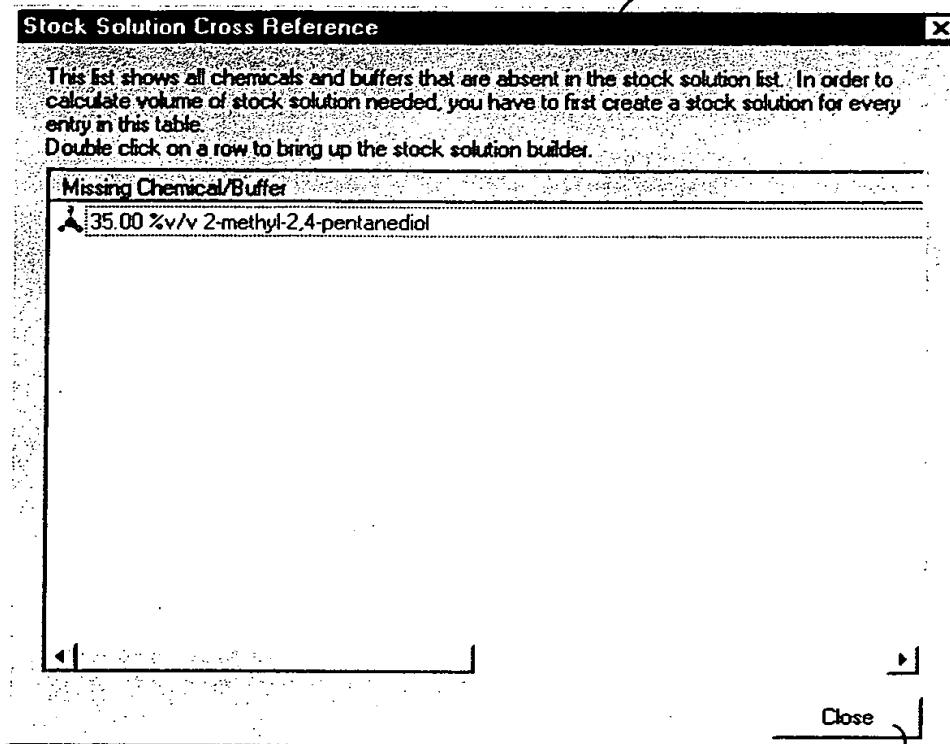


Fig. 86

8700

New Stock Solution (2-methyl-2,4-pentanediol)

Solution Attributes	
pH of Solution:	<input type="text"/>
Vapor Pressure Density:	<input checked="" type="radio"/> mmole/kg <input type="radio"/> g/cm ³
Conductivity:	<input checked="" type="radio"/> µS/cm <input type="radio"/> mS/m
Solvent:	H ₂ O (Molte)
Solution Name:	MPD 100% (v/v) stock
Concentration:	100 <input type="radio"/> % v/v <input checked="" type="radio"/> mol/l
pH of Solution:	
<input type="radio"/> Estimated <input checked="" type="radio"/> Measured	
Comment:	
100% (v/v) MPD stock	
<input type="button" value="Commit"/> <input type="button" value="Cancel"/>	

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Fig. 87

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Stock solution volumes to build matrix newsys061599

What is the final desired Crystallant volume? ml

WellID	Volume	Stock Name	Stock Conc.	Chemical Name
1	1.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical ...)
1	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Ch...)
1	8.800 ml		n/a	H2O
2	1.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical ...)
2	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Ch...)
2	8.300 ml		n/a	H2O
3	2.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical ...)
3	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Ch...)
3	7.800 ml		n/a	H2O
4	2.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical ...)
4	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Ch...)
4	7.300 ml		n/a	H2O
5	3.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical ...)
5	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Ch...)

8808
8810
8812
8814

Fig. 88

WellID	Volume	Stock Name	Stock Conc.	Chemical Name	Chemical Type	Final Conc.
1	1.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	10.000 %v/v
1	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	100.000 mM

DOSE FORM - D00200

	8.800 ml		n/a	H2O	Solvent	n/a
2	1.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	15.000 %v/v
2	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	100.000 mM
2	8.300 ml		n/a	H2O	Solvent	n/a
3	2.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	20.000 %v/v
3	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	100.000 mM
3	7.800 ml		n/a	H2O	Solvent	n/a
4	2.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	25.000 %v/v
4	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	100.000 mM
4	7.300 ml		n/a	H2O	Solvent	n/a
5	3.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	30.000 %v/v
5	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	100.000 mM
5	6.800 ml		n/a	H2O	Solvent	n/a
6	3.500 ml	PEG-200	100.000	PEG-200	Precipitant	35.000

Fig. 89B

		stock	%v/v	(Sigma Chemical Co.)	t	%v/v
6	0.200 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	100.000 mM
6	6.300 ml		n/a	H ₂ O	Solvent	n/a
7	1.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	10.000 %v/v
7	0.400 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	200.000 mM
7	8.600 ml		n/a	H ₂ O	Solvent	n/a
8	1.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	15.000 %v/v
8	0.400 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	200.000 mM
8	8.100 ml		n/a	H ₂ O	Solvent	n/a
9	2.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	20.000 %v/v
9	0.400 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	200.000 mM
9	7.600 ml		n/a	H ₂ O	Solvent	n/a
10	2.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical	Precipitant	25.000 %v/v

000000000000000000000000

				(Co.)		
10	0.400 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	200.000 mM
10	7.100 ml		n/a	H ₂ O	Solvent	n/a
11	3.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	30.000 %v/v
11	0.400 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	200.000 mM
11	6.600 ml		n/a	H ₂ O	Solvent	n/a
12	3.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	35.000 %v/v
12	0.400 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	200.000 mM
12	6.100 ml		n/a	H ₂ O	Solvent	n/a
13	1.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	10.000 %v/v
13	0.600 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	300.000 mM
13	8.400 ml		n/a	H ₂ O	Solvent	n/a
14	1.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	15.000 %v/v
14	0.600 ml	sodium	5000.000	sodium	Precipitant	300.000

Fig. 89 D

		chloride 5 M stock	mM	chloride (Sigma Chemical Co.)	t	mM
14	7.900 ml		n/a	H2O	Solvent	n/a
15	2.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	20.000 %v/v
15	0.600 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	300.000 mM
15	7.400 ml		n/a	H2O	Solvent	n/a
16	2.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	25.000 %v/v
16	0.600 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	300.000 mM
16	6.900 ml		n/a	H2O	Solvent	n/a
17	3.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	30.000 %v/v
17	0.600 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	300.000 mM
17	6.400 ml		n/a	H2O	Solvent	n/a
18	3.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	35.000 %v/v
18	0.600 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma	Precipitant	300.000 mM

				Chemical Co.)		
18	5.900 ml		n/a	H2O	Solvent	n/a
19	1.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitan t	10.000 %v/v
19	0.800 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitan t	400.000 mM
19	8.200 ml		n/a	H2O	Solvent	n/a
20	1.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitan t	15.000 %v/v
20	0.800 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitan t	400.000 mM
20	7.700 ml		n/a	H2O	Solvent	n/a
21	2.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitan t	20.000 %v/v
21	0.800 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitan t	400.000 mM
21	7.200 ml		n/a	H2O	Solvent	n/a
22	2.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitan t	25.000 %v/v
22	0.800 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitan t	400.000 mM

Fig. 89 F

22	6.700 ml		n/a	H2O	Solvent	n/a
23	3.000 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	30.000 %v/v
23	0.800 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	400.000 mM
23	6.200 ml		n/a	H2O	Solvent	n/a
24	3.500 ml	PEG-200 stock	100.000 %v/v	PEG-200 (Sigma Chemical Co.)	Precipitant	35.000 %v/v
24	0.800 ml	sodium chloride 5 M stock	5000.000 mM	sodium chloride (Sigma Chemical Co.)	Precipitant	400.000 mM
24	5.700 ml		n/a	H2O	Solvent	n/a

Fig. 89G

0963468080200

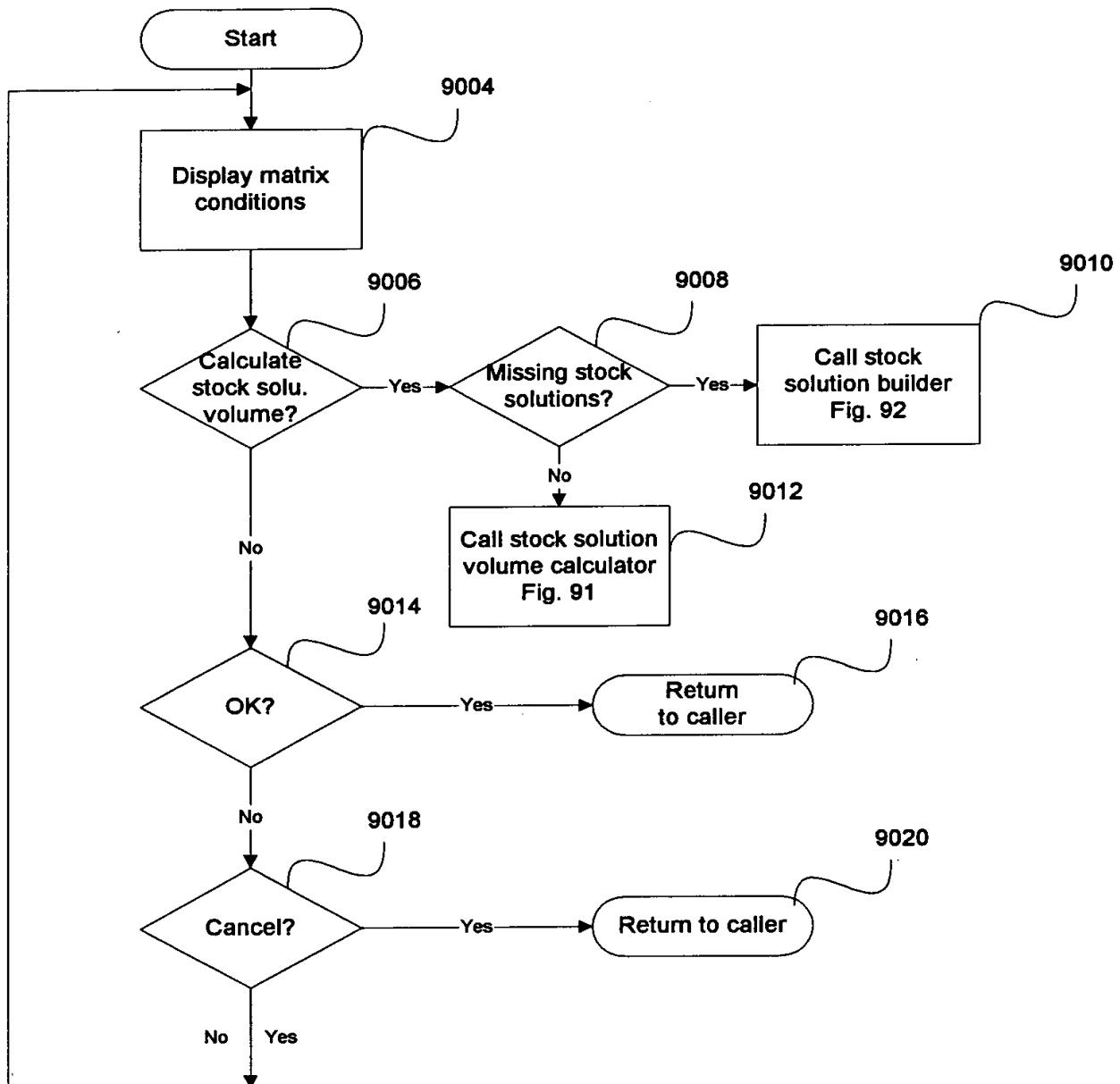


FIGURE 90

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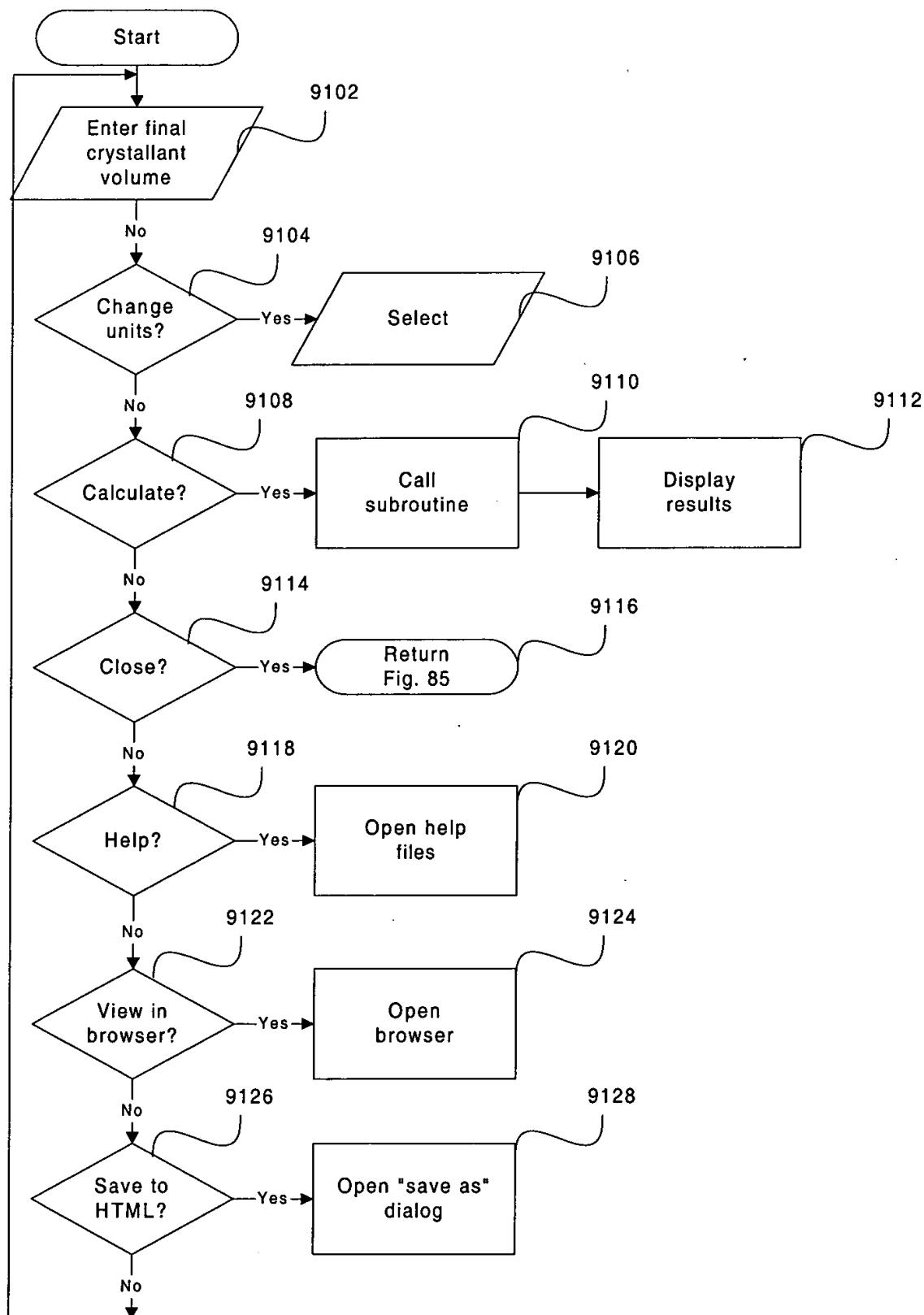


FIGURE 91

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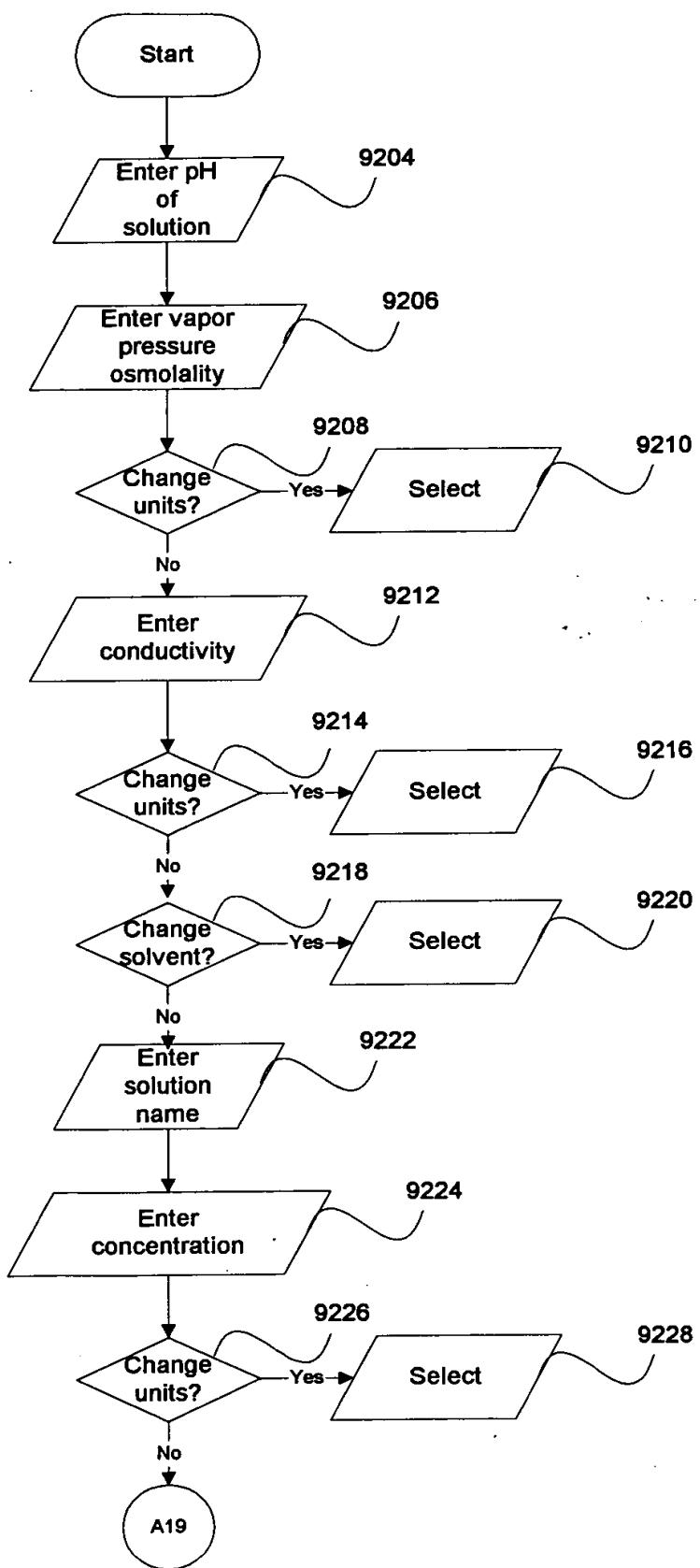


FIGURE 92

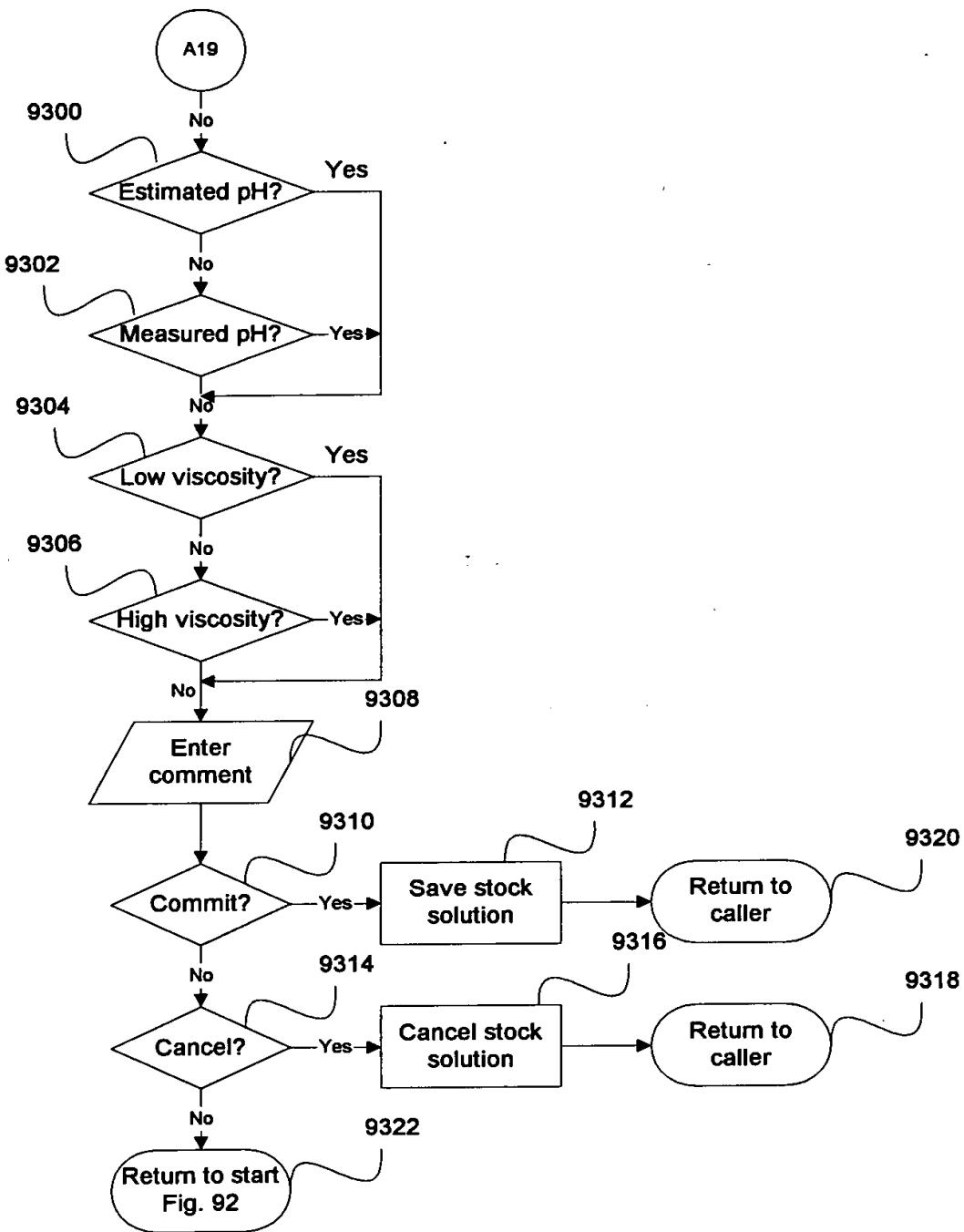
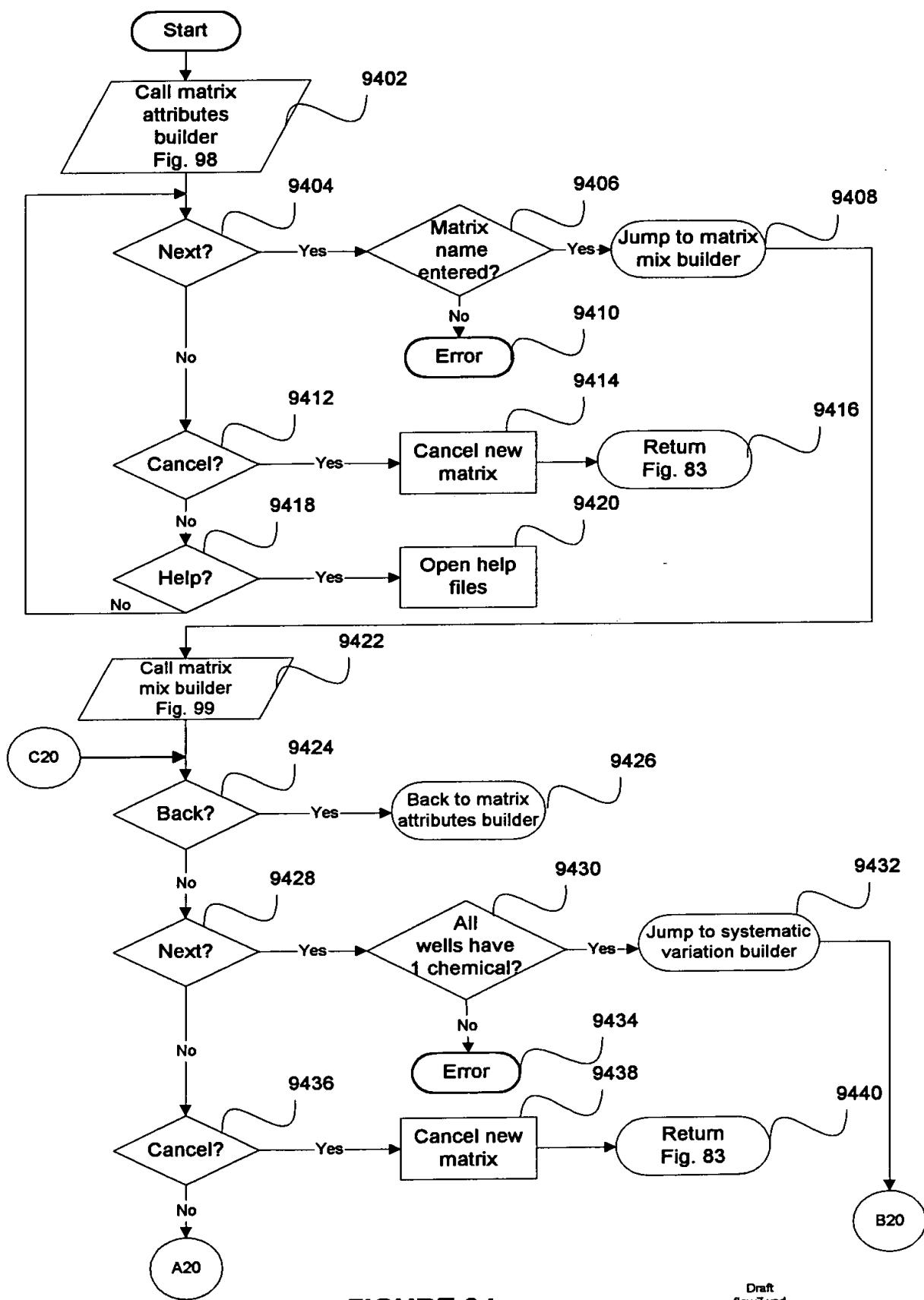


FIGURE 93



002000 = 9577760

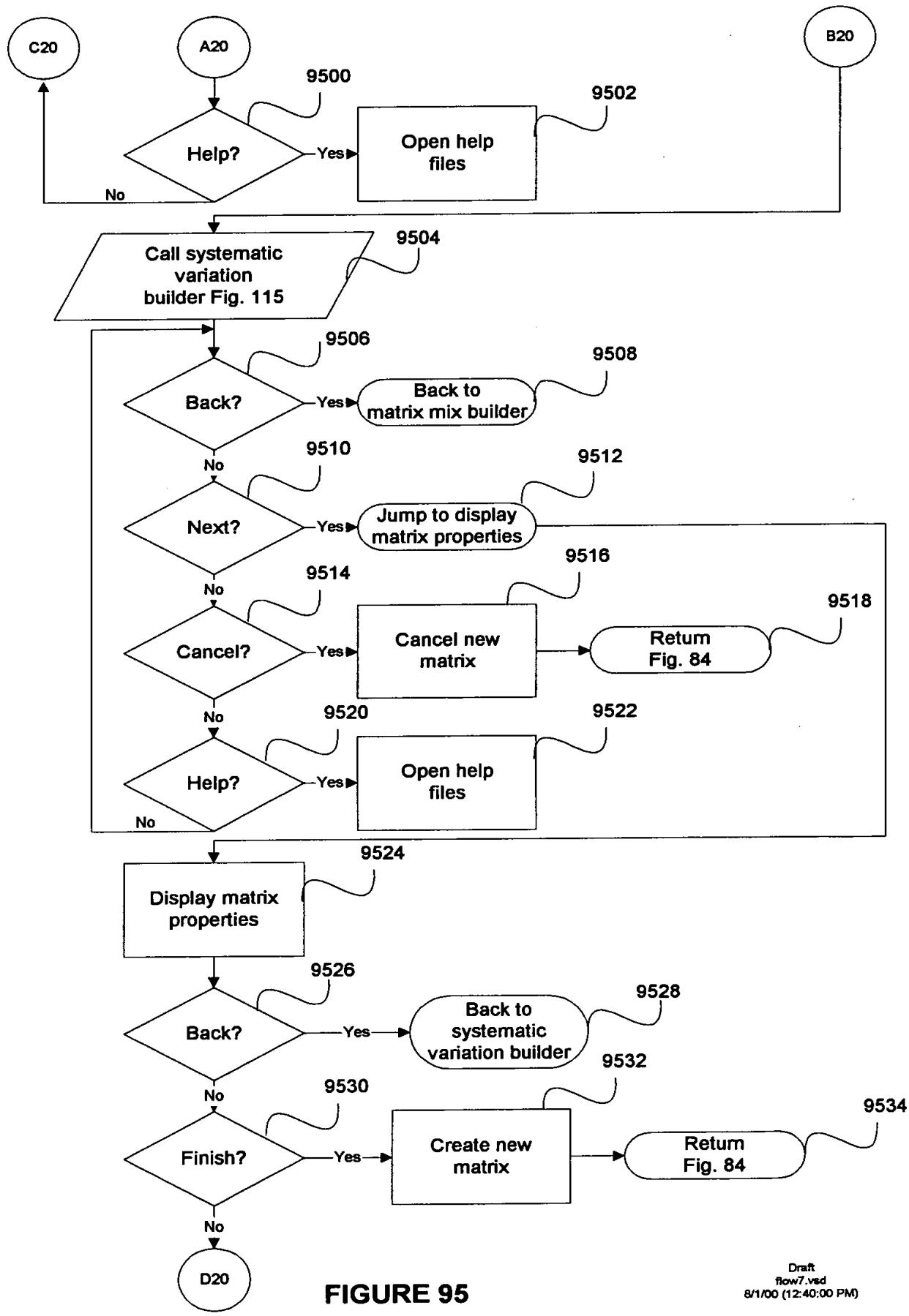


FIGURE 95

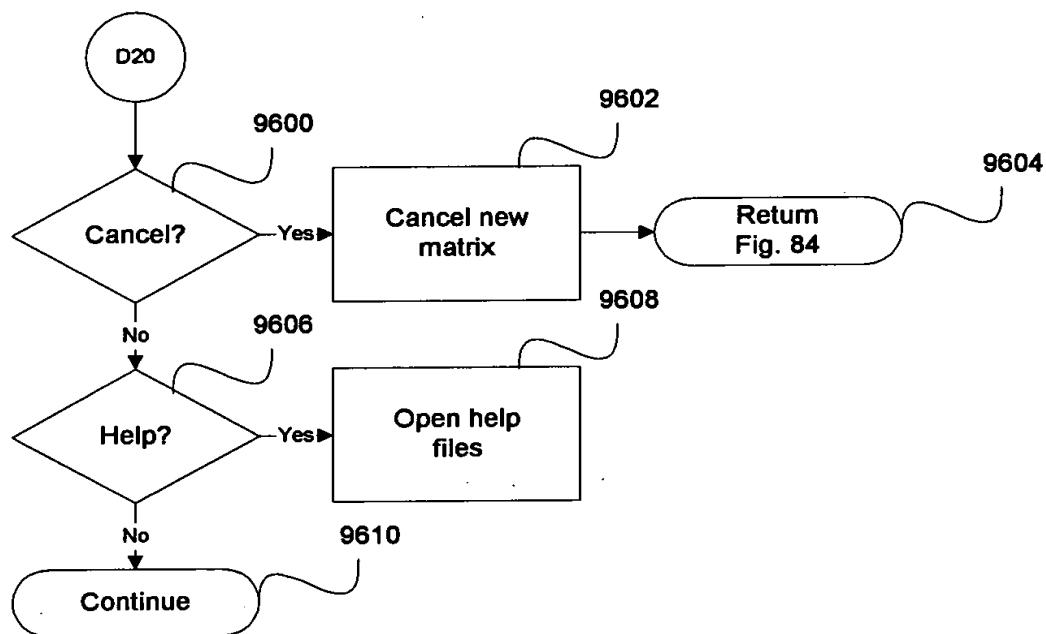


FIGURE 96

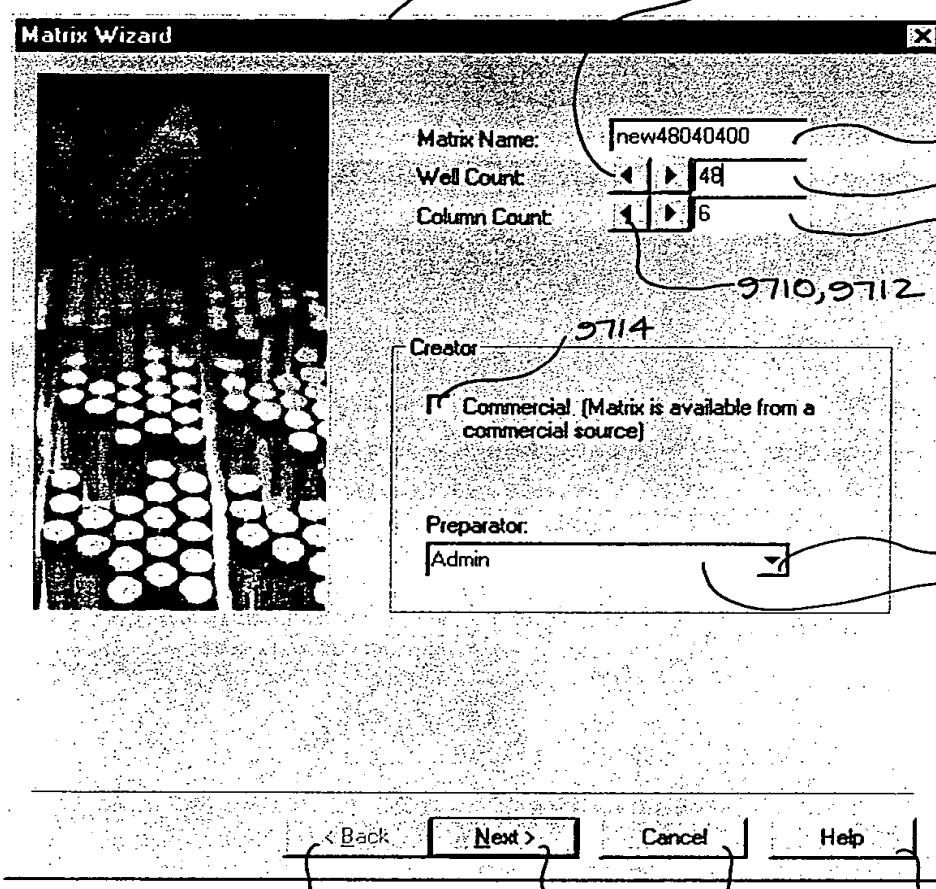


Fig. 97

DO NOT USE - SEE FIGURE 94

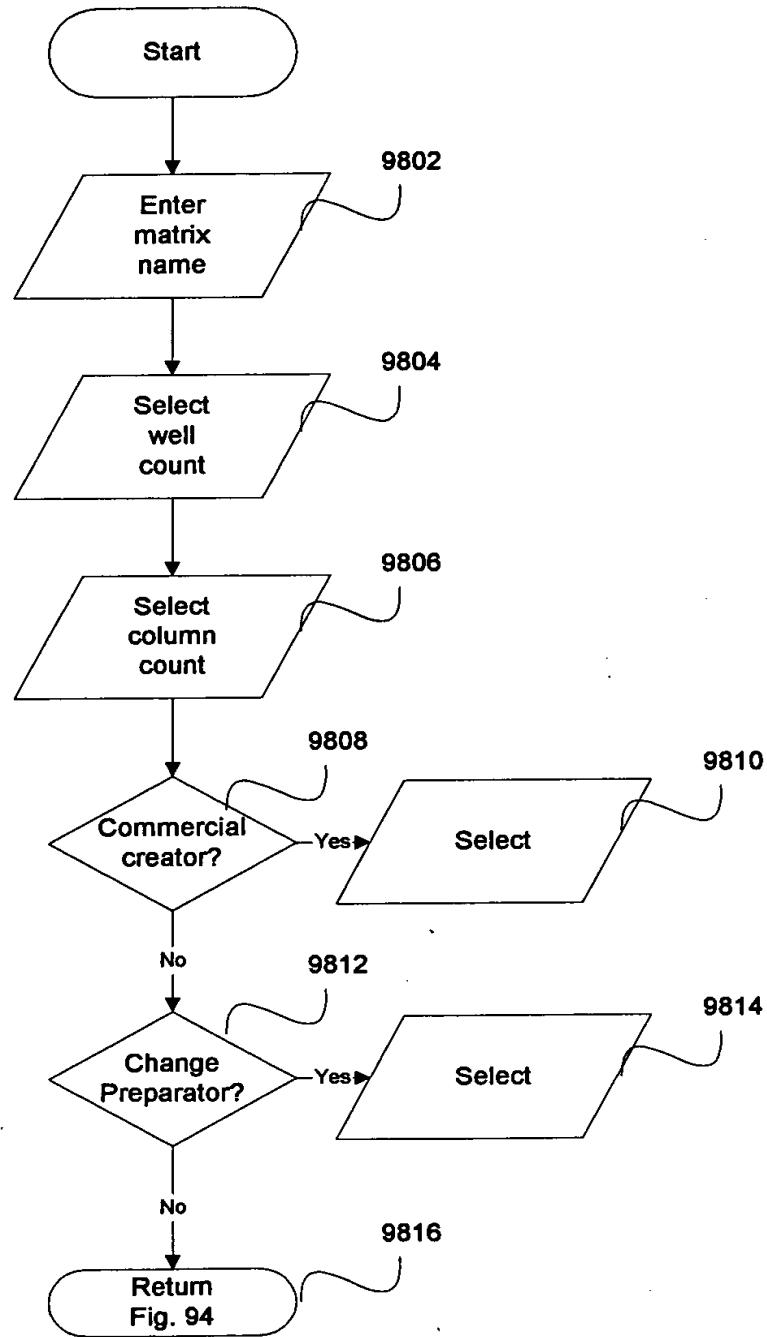


FIGURE 98

002000-00577660

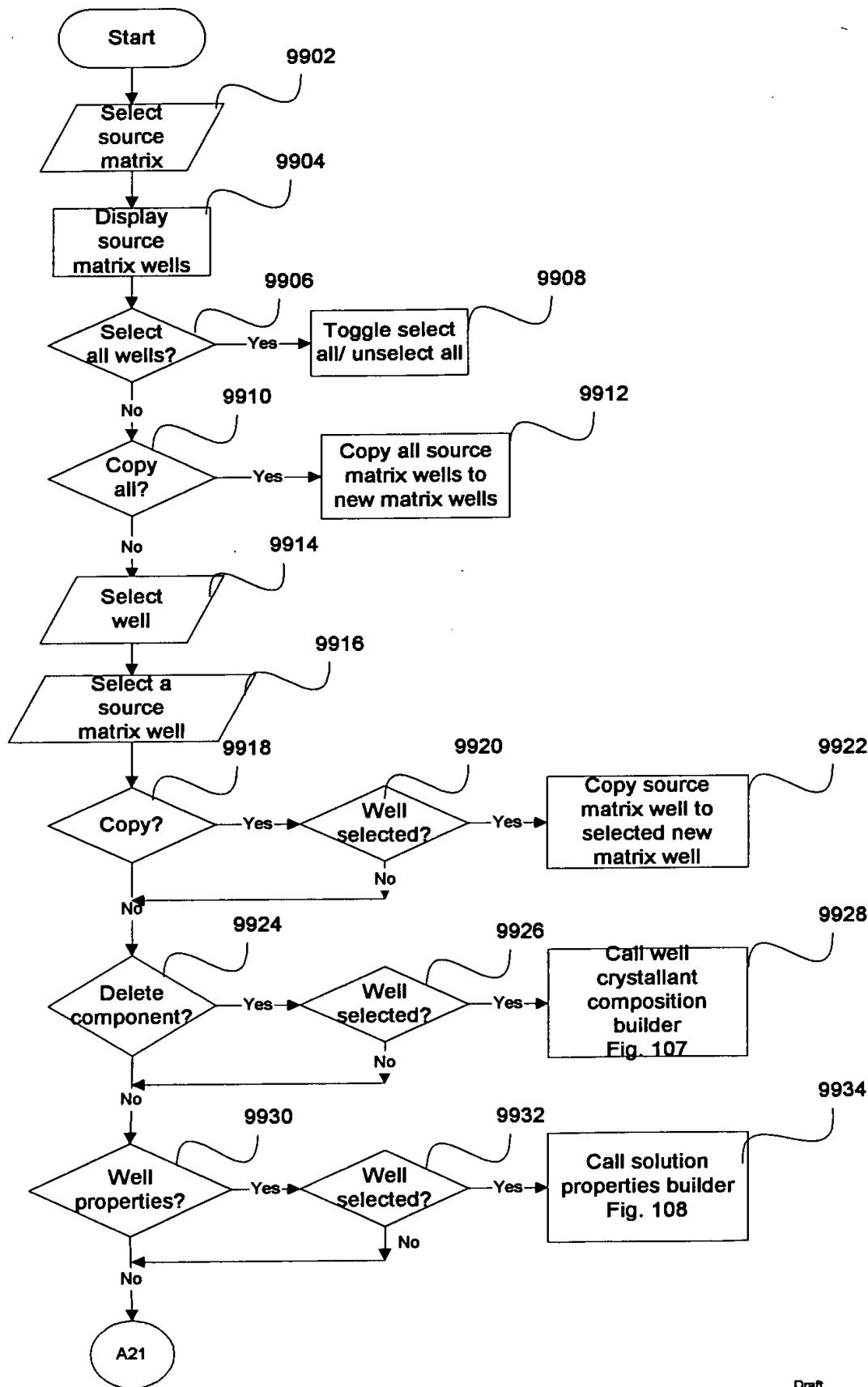


FIGURE 99

DOCUMENT - 000200

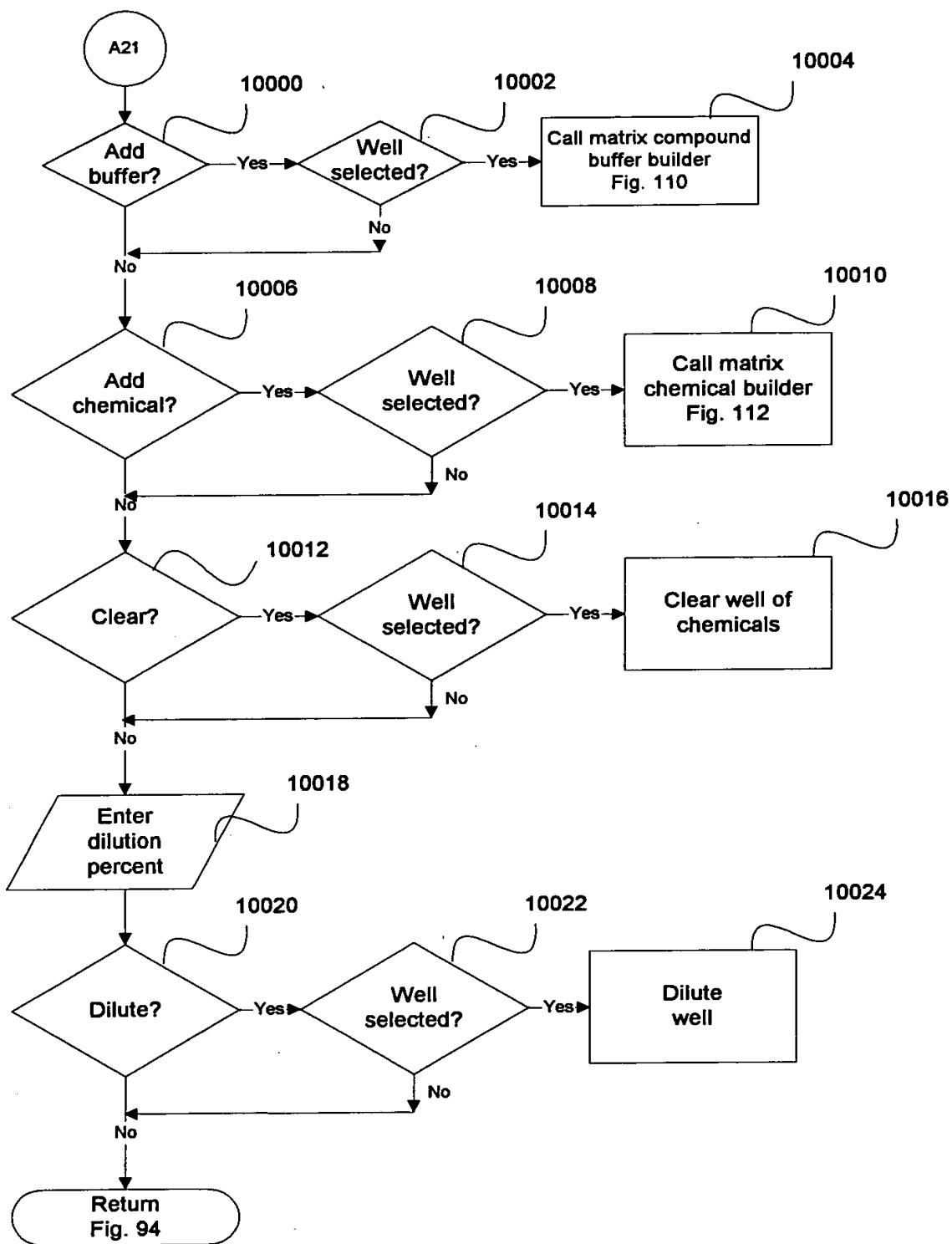


FIGURE 100

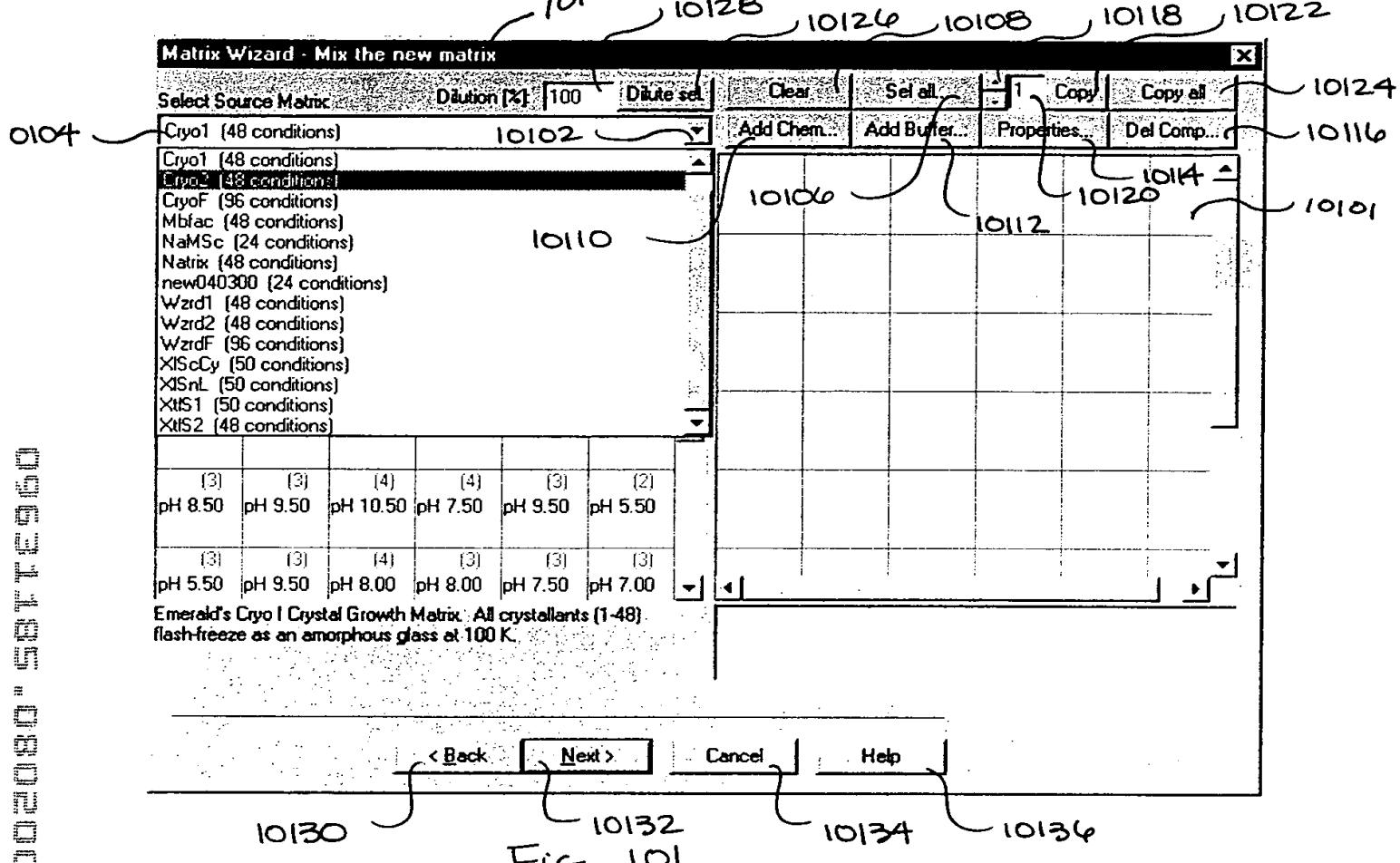


Fig. 101

0020080 = 0020080

Matrix Wizard - Mix the new matrix

Select Source Matrix:						Dilution [%]: 50	Dilute sel
Cryo1 (48 conditions)							
(2) pH 4.20	(2) pH 4.50	(2) pH 5.50	(3) pH 7.50	(3) pH 5.50	(3) pH 6.50	(2) pH 4.20	(2) pH 4.20
(3) pH 8.50	(2) pH 6.50	(2) pH 4.20	(2) pH 8.00	(3) pH 8.50	(3) pH 4.50	(2) pH 4.20	(2) pH 4.20
(3) pH 6.00	(4) pH 4.20	(3) pH 9.50	(4) pH 6.00	(2) pH 7.50	(3) pH 8.00	(2) pH 4.20	(2) pH 4.20
(2) pH 8.50	(3) pH 5.50	(3) pH 4.50	(2) pH 6.20	(3) pH 7.00	(3) pH 6.20	(2) pH 4.20	(2) pH 4.20
(3) pH 8.50	(3) pH 9.50	(4) pH 10.50	(4) pH 7.50	(3) pH 9.50	(2) pH 5.50	(2) pH 4.20	(2) pH 4.20
(3) pH 5.50	(3) pH 9.50	(4) pH 8.00	(3) pH 8.00	(3) pH 7.50	(3) pH 7.00	(2) pH 4.20	(2) pH 4.20

Emerald's Cryo I Crystal Growth Matrix. All crystallants (1-48) flash-freeze as an amorphous glass at 100 K.

10100 10106 10118 10120 10122 10114 10124 10116 10101 10201

10104

Well 1 -

Compound Buffers:
50.000 mM (Na₂H phosphate, citric acid) pH 4.20

Chemicals:
20.000 %v/v MPD, Precipitant (Fluka Chemical Corp. 68340)

Solution Properties:
Final pH: 4.20 est.
Conductivity: n/a
Vapor Pressure Osmolality: n/a
Viscosity: Low
Solvent: H₂O

< Back | Next > | Cancel | Help

10130 10132 10134 10136

FIG. 102

10300

10301

10302

10308

10304

10304a

10304b

10306

10306 - 030200

Crystallant Composition - Removal List

Check the box for the Chemicals to remove from selected wells:

Chemical Name	Abbreviation	Formula
<input type="checkbox"/> 2-methyl-2,4-pentanediol	MPD	C6H14O2

◀ ▶

Check the box for the Compound Buffers to remove from selected wells:

Buffer PH	Buffering Agent	pH Conjugate
<input type="checkbox"/> 4.20	sodium phosphate dibasic [N...]	citric acid monohydrate [citric...]

◀ ▶

OK Cancel

Fig. 103

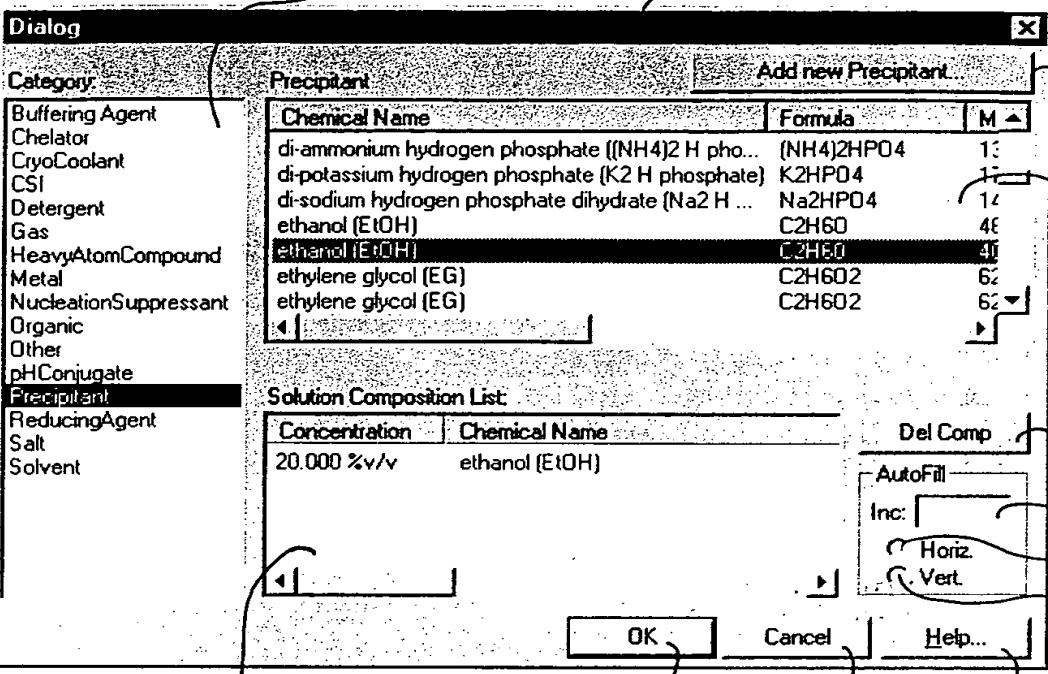


Fig. 104

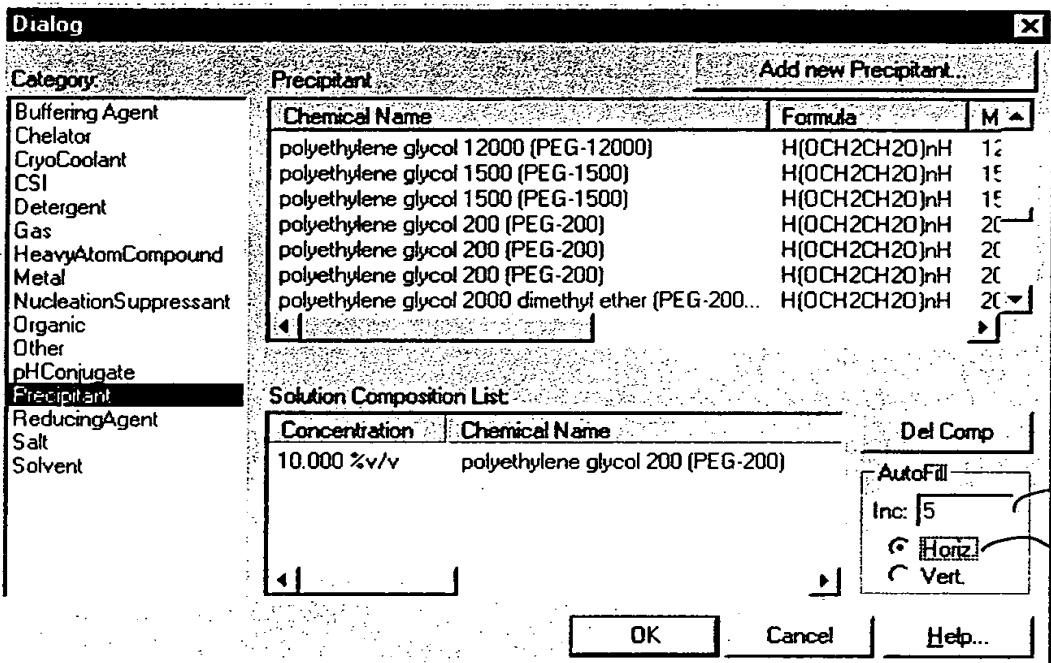


Fig. 105

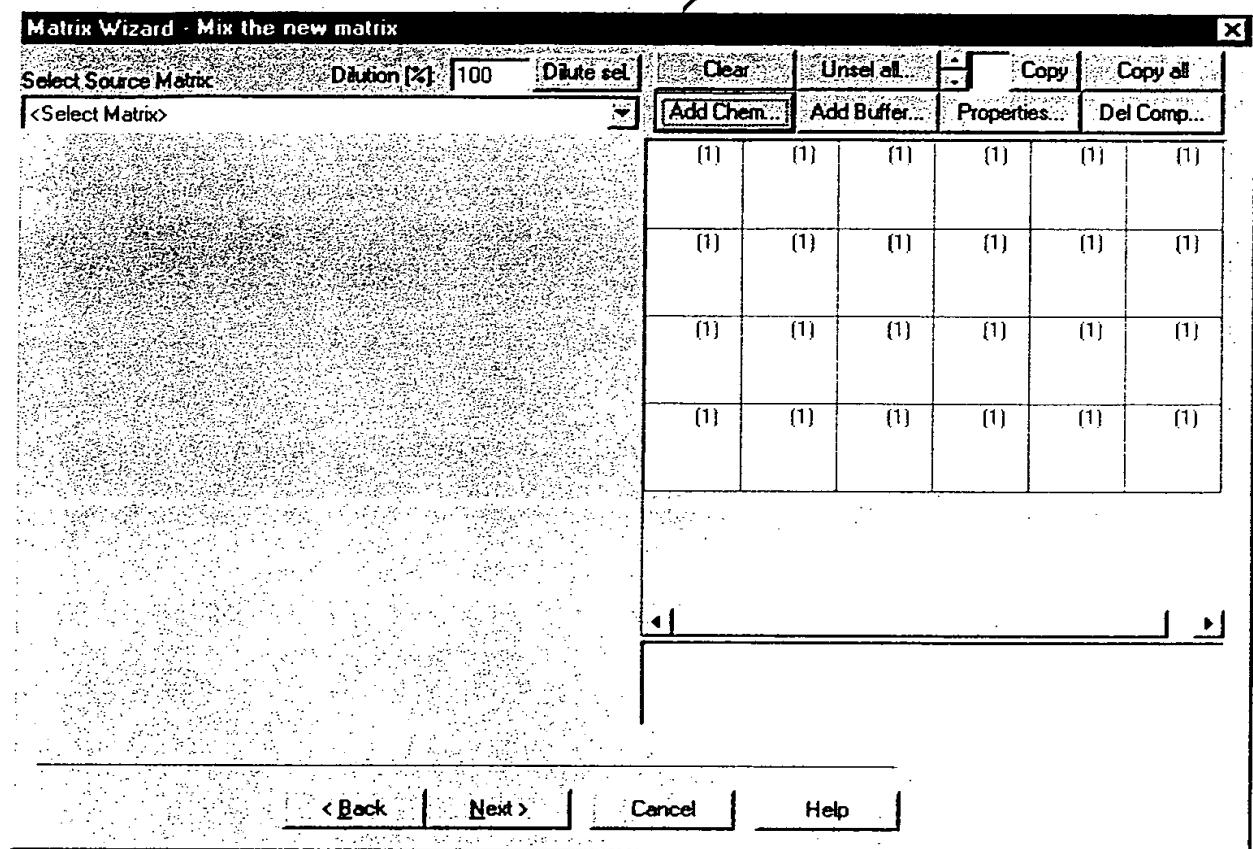


Fig. 106

09634185 - 098200

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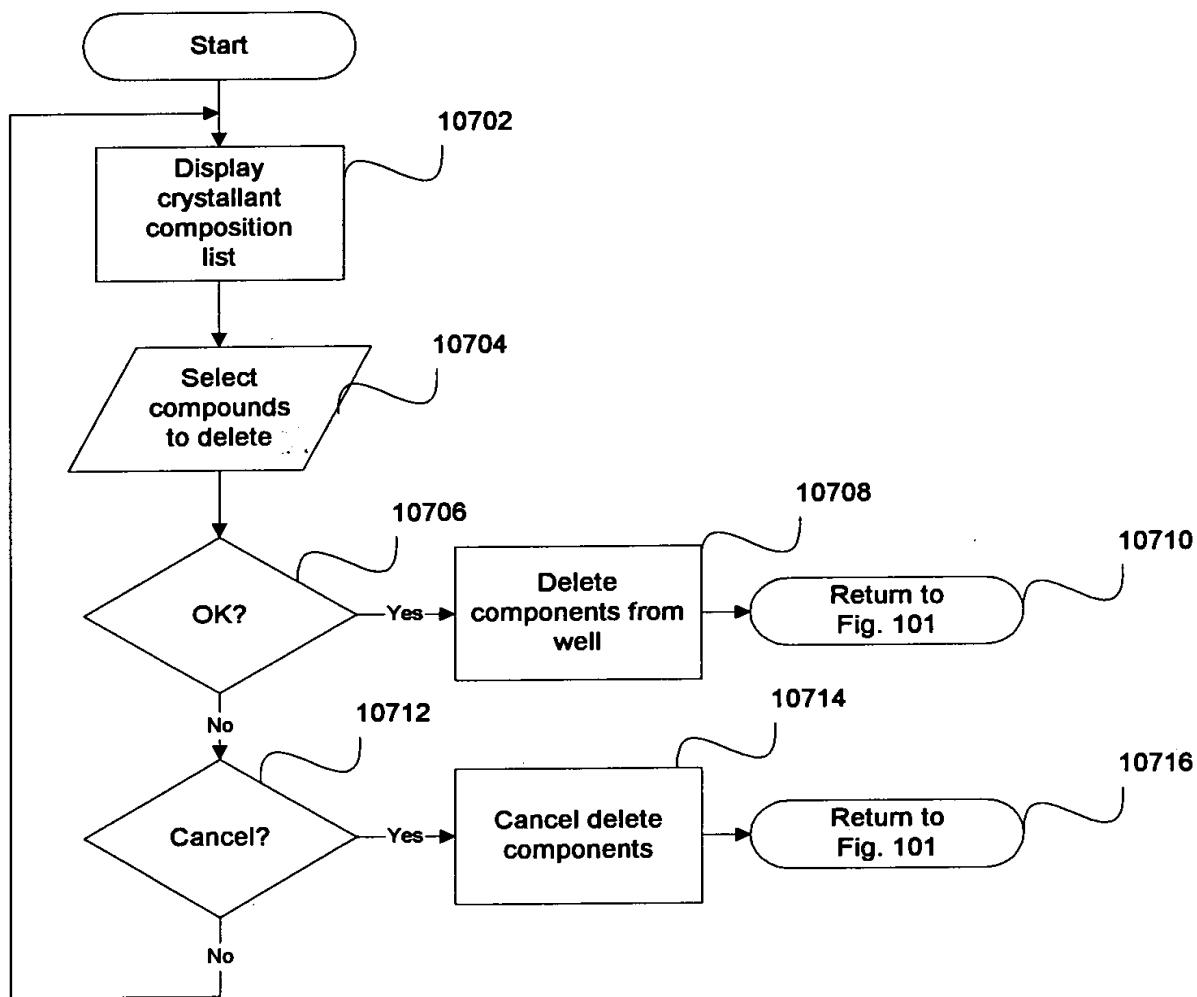


FIGURE 107

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flow7a.vsd
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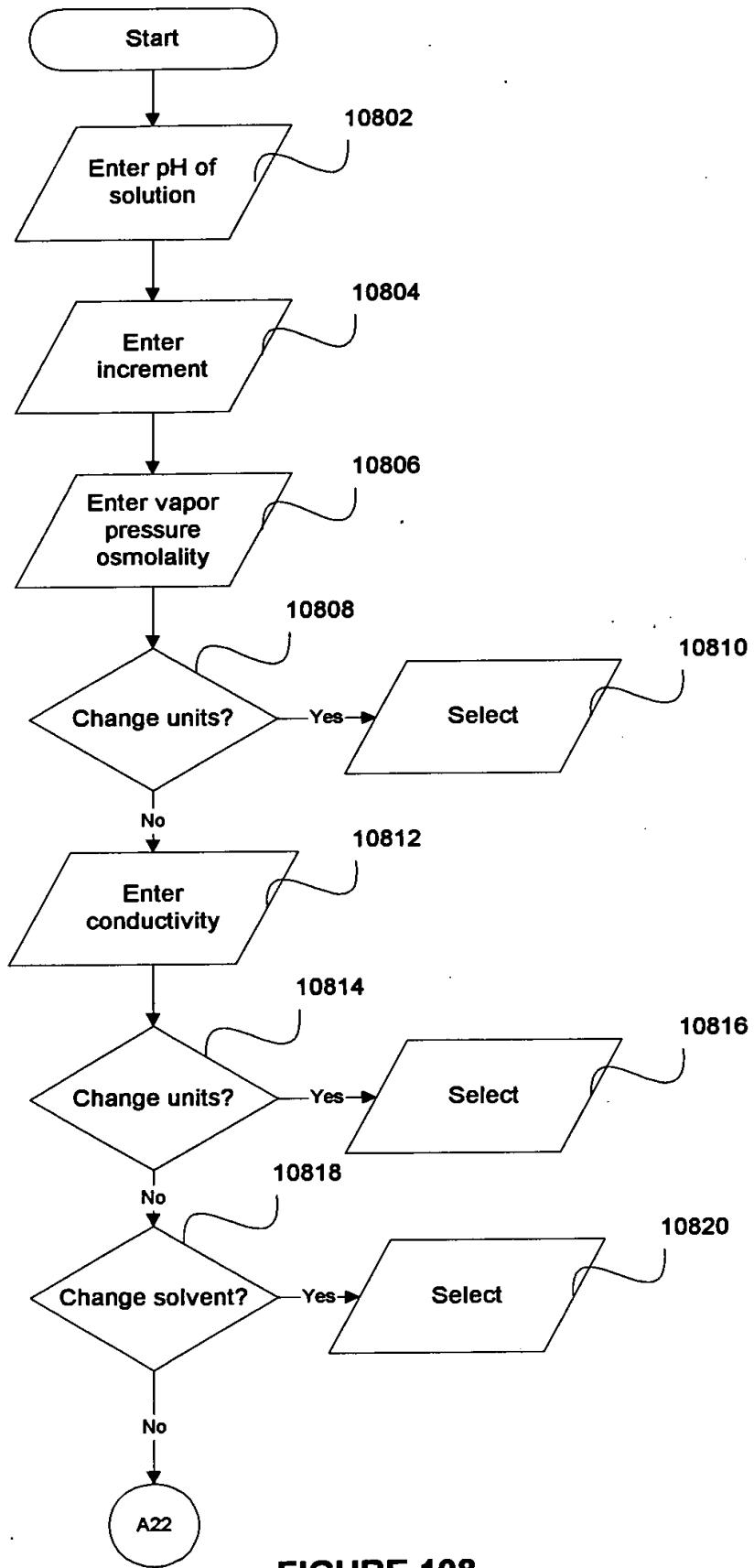


FIGURE 108

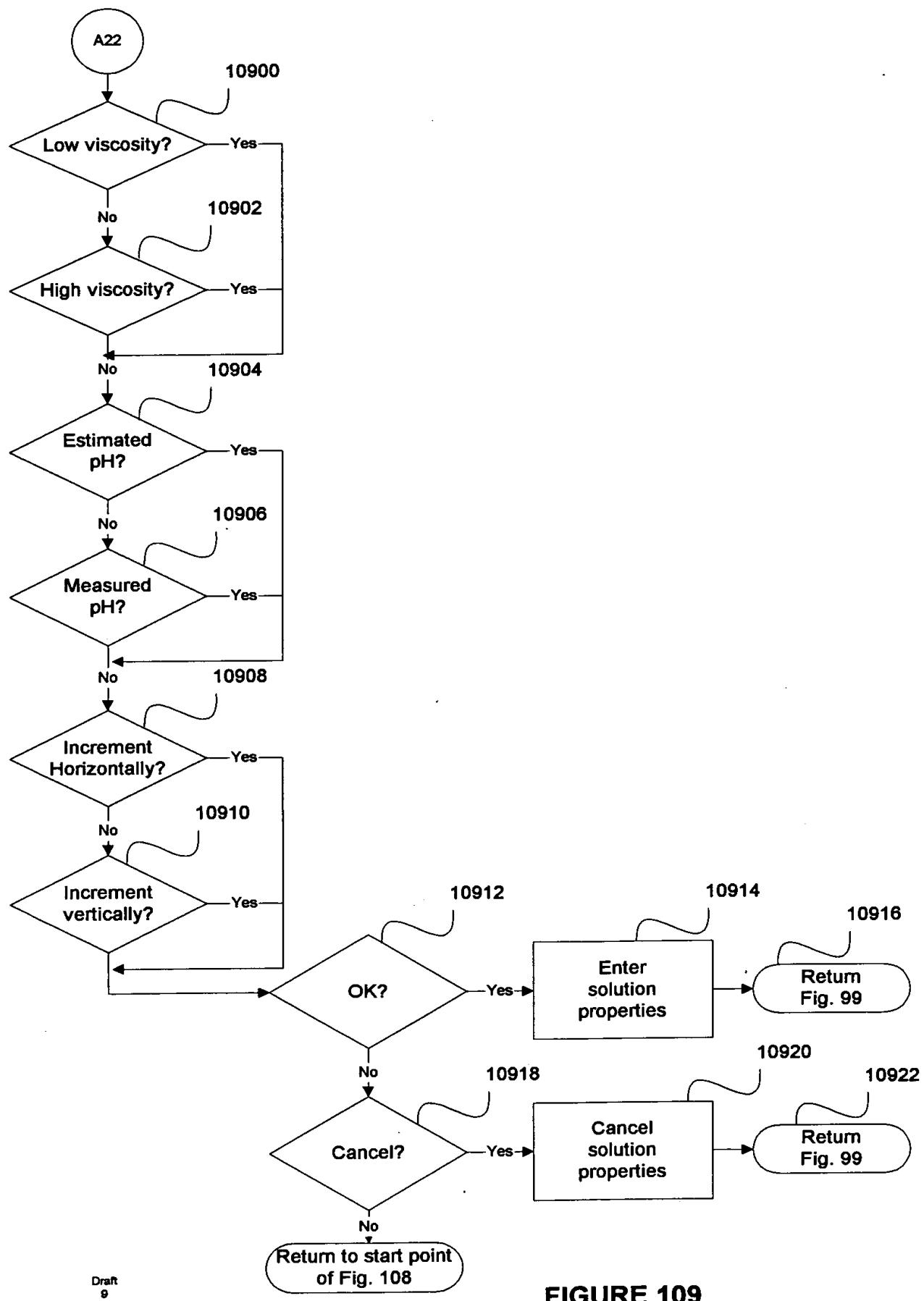


FIGURE 109

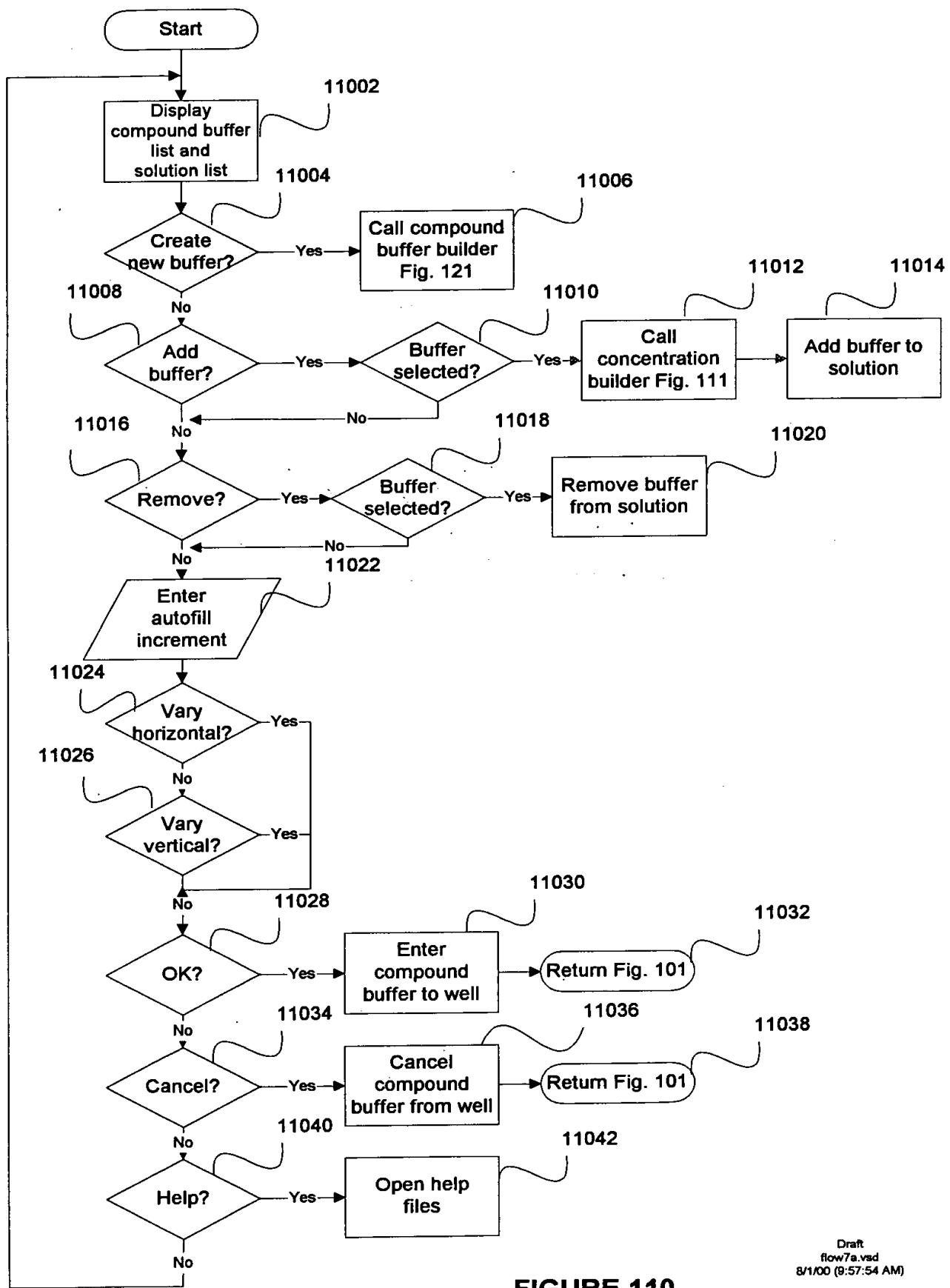


FIGURE 110

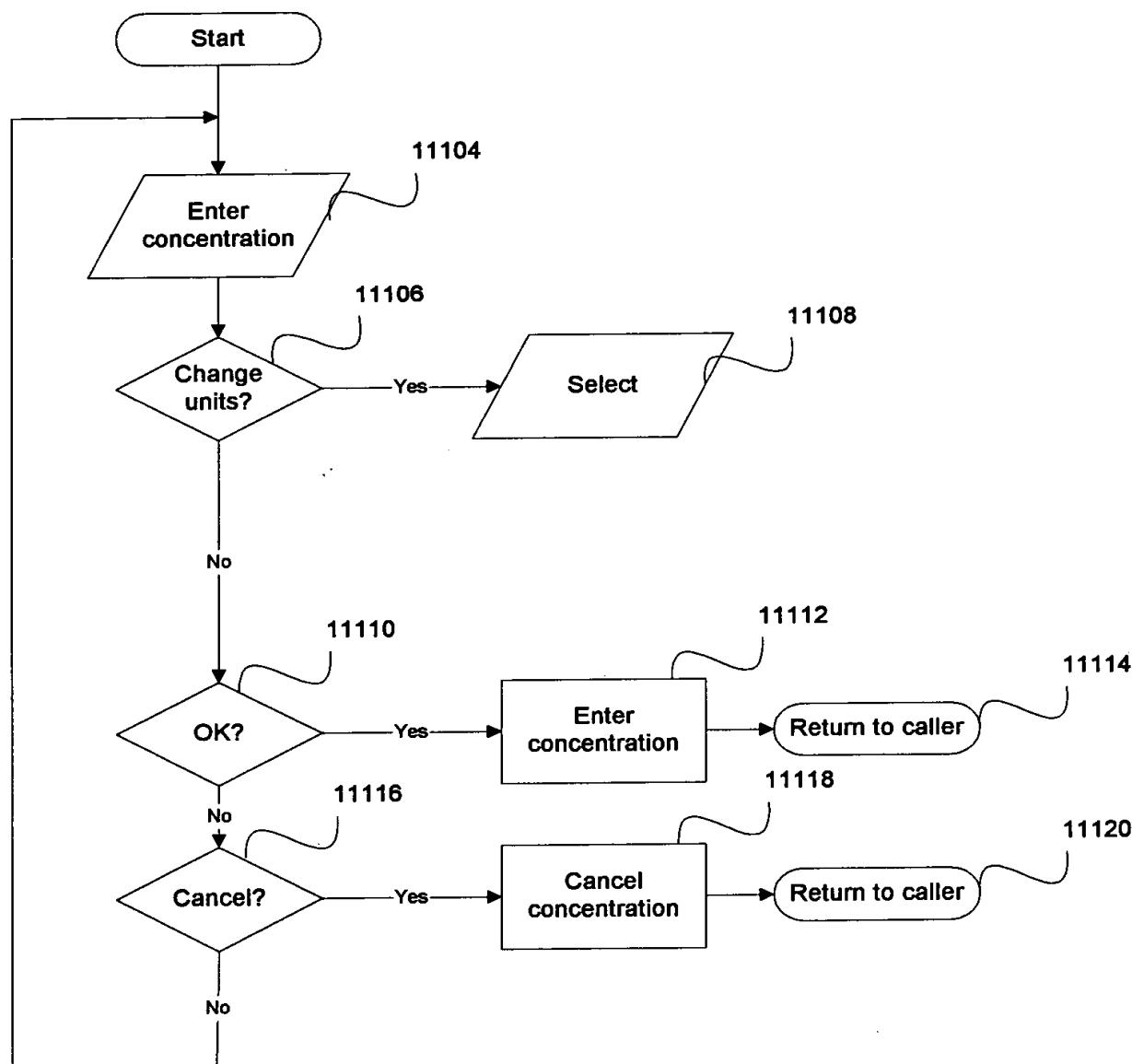
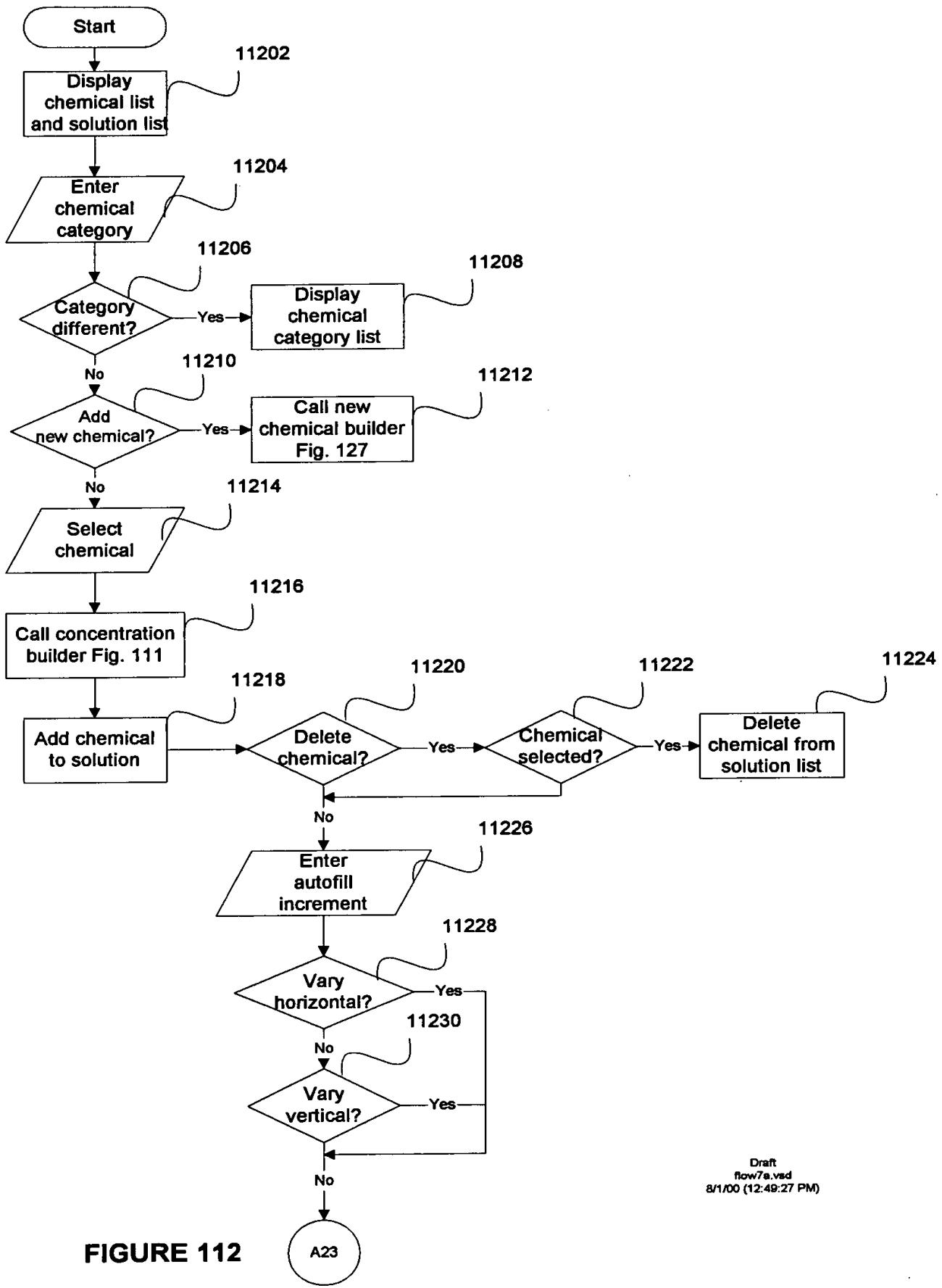


FIGURE 111



00020680-5529-4000

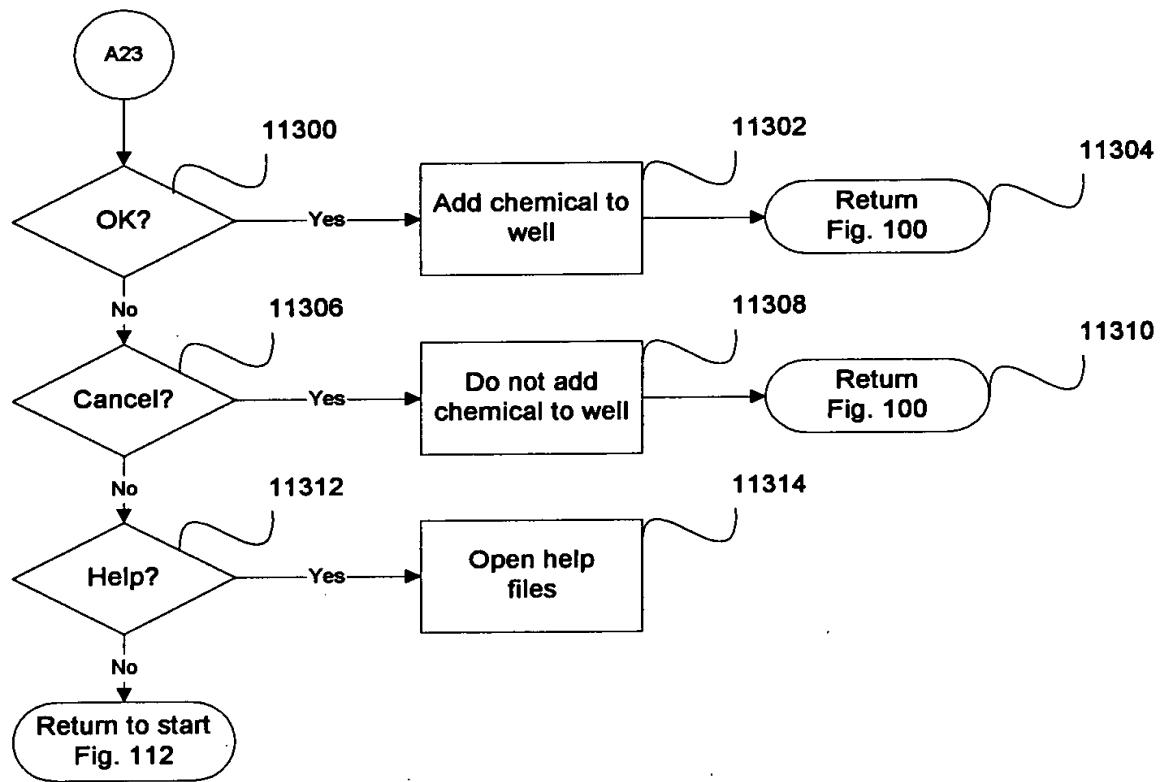


FIGURE 113

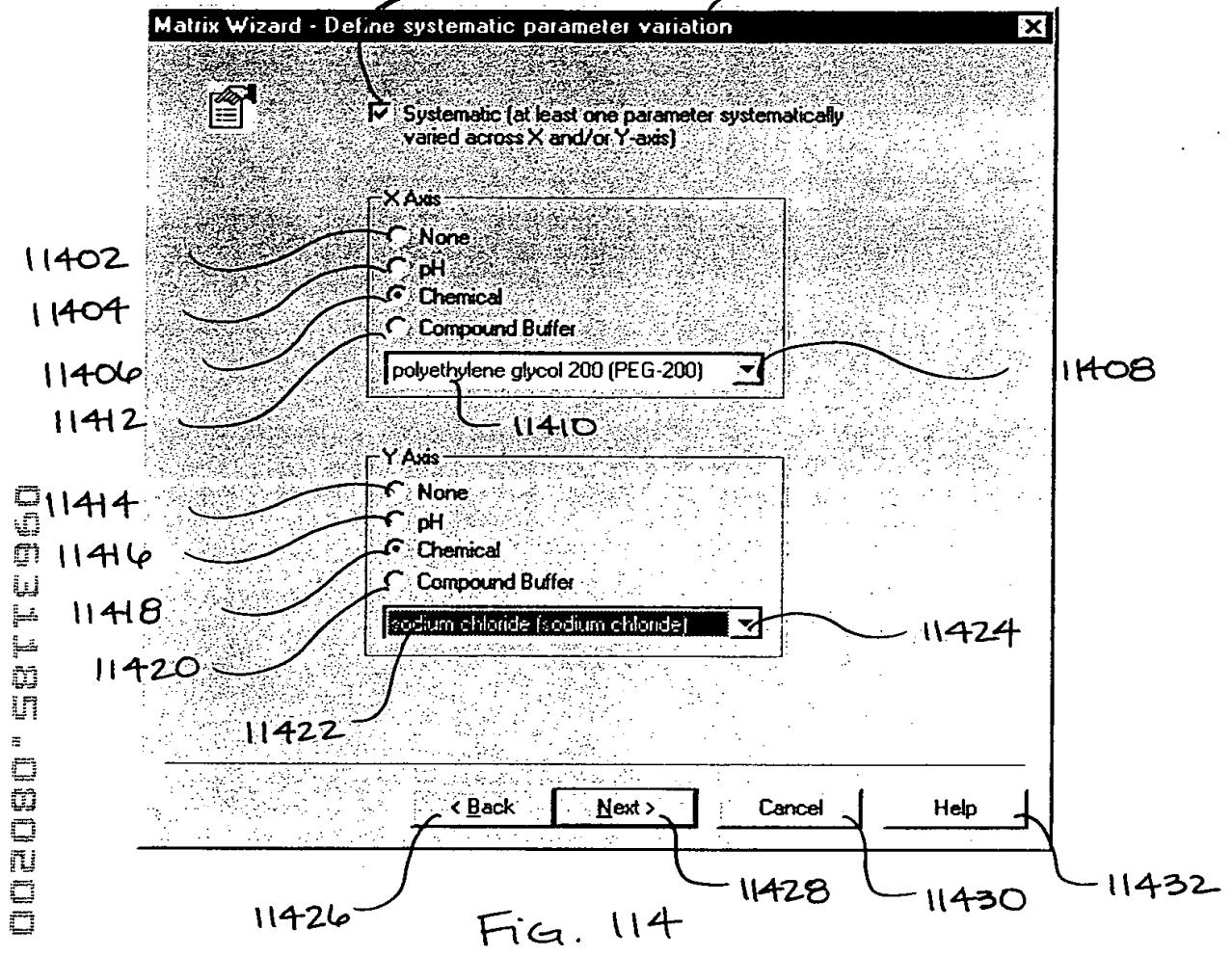


Fig. 114

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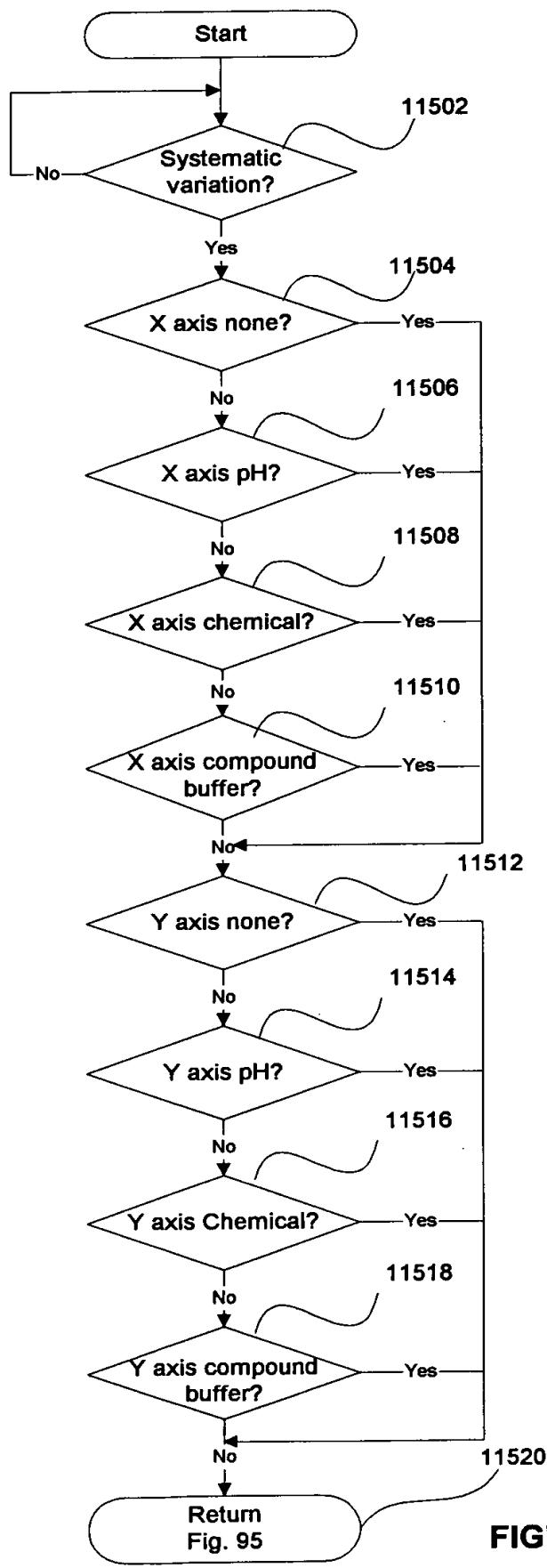
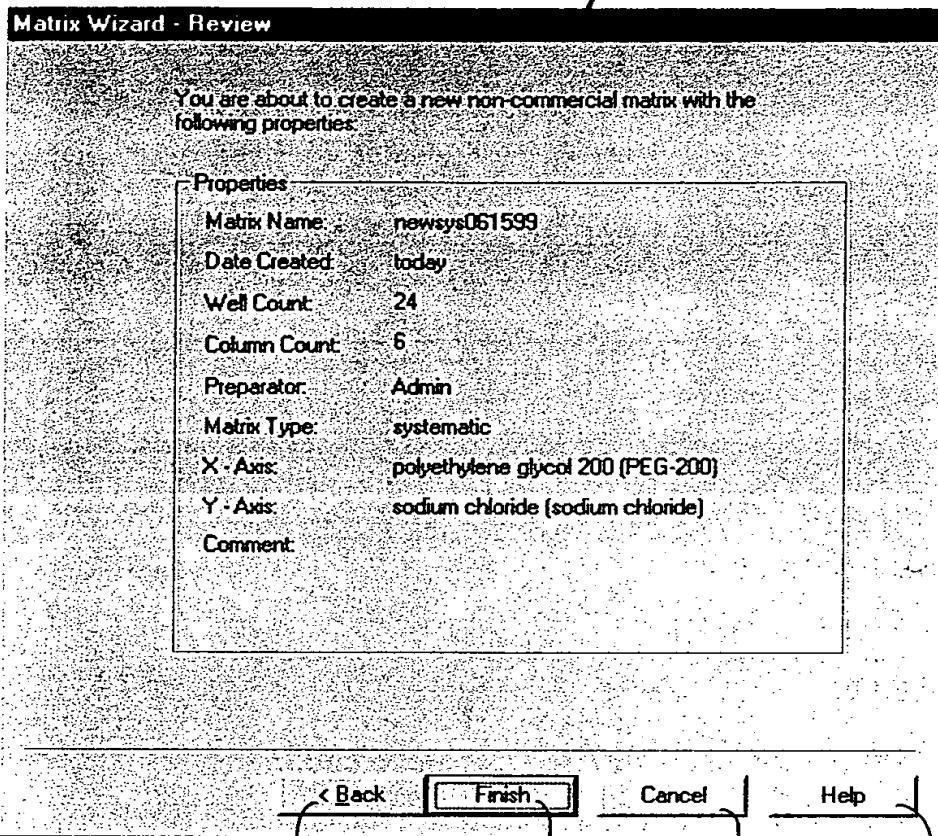


FIGURE 115



11601

11602

11604

11606

Fig. 116

002000-555555555550

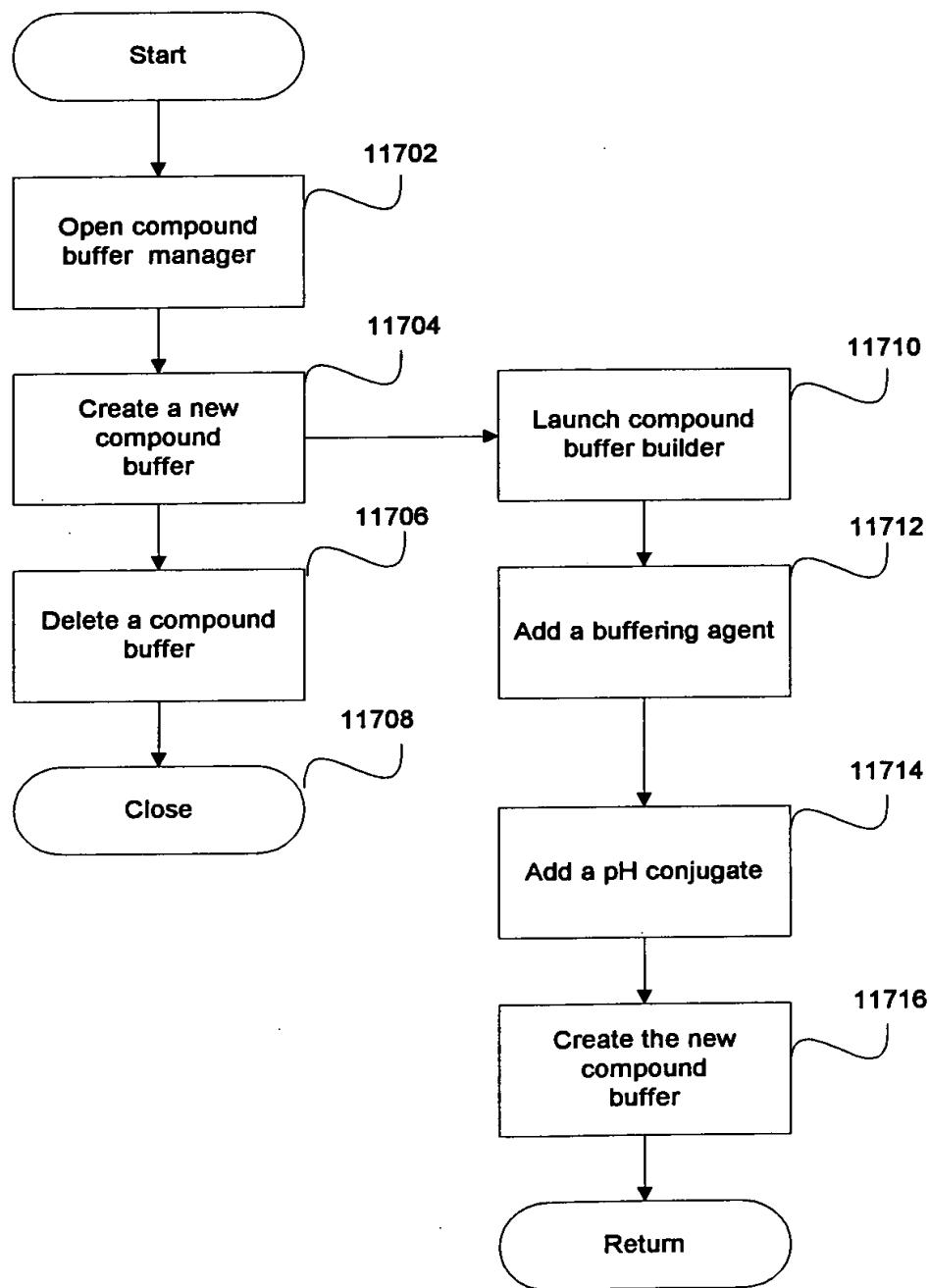


FIGURE 117

H⁺

11800

H⁺ Compound Buffer Manager

Buffer PH	Buffering Agent [Full name]	BuF Agent [abbr]	BuF Agent [Mnft]
H ⁺ 4.20	sodium phosphate dibasic	Na2 H phosphate	Sigma Chemica
H ⁺ 4.50	acetic acid	acetic acid	Sigma Chemica
H ⁺ 4.60	sodium acetate trihydrate	NaAc	Hampton Rese
H ⁺ 5.50	sodium cacodylic acid trihydrate	Na cacodylate	Hampton Rese
H ⁺ 5.50	sodium citrate dihydrate	Na3 citrate	Sigma Chemica
H ⁺ 5.60	sodium citrate dihydrate	Na3 citrate	Hampton Rese
H ⁺ 5.60	2-morpholinoethanesulfonic acid	MES	Hampton Rese
H ⁺ 6.00	sodium cacodylic acid trihydrate	Na cacodylate	Hampton Rese
H ⁺ 6.00	2-morpholinoethanesulfonic acid	MES	Hampton Rese
H ⁺ 6.00	(2-N-morpholino)ethanesulfonic acid	MES	Sigma Chemica
H ⁺ 6.20	sodium phosphate dibasic	Na2 H phosphate	Sigma Chemica
H ⁺ 6.50	sodium dimethylarsinic acid	Na cacodylate	Sigma Chemica
H ⁺ 6.50	n-(2-acetamido)iminodiacetic acid	ADA	Hampton Rese
H ⁺ 6.50	sodium citrate dihydrate	Na3 citrate	Hampton Rese
H ⁺ 6.50	1,3-diaza-2,4-cyclopentadiene	imidazole	Hampton Rese
H ⁺ 6.50	sodium cacodylic acid trihydrate	Na cacodylate	Hampton Rese
H ⁺ 6.50	2-morpholinoethanesulfonic acid	MES	Hampton Rese

11801

New... 11808

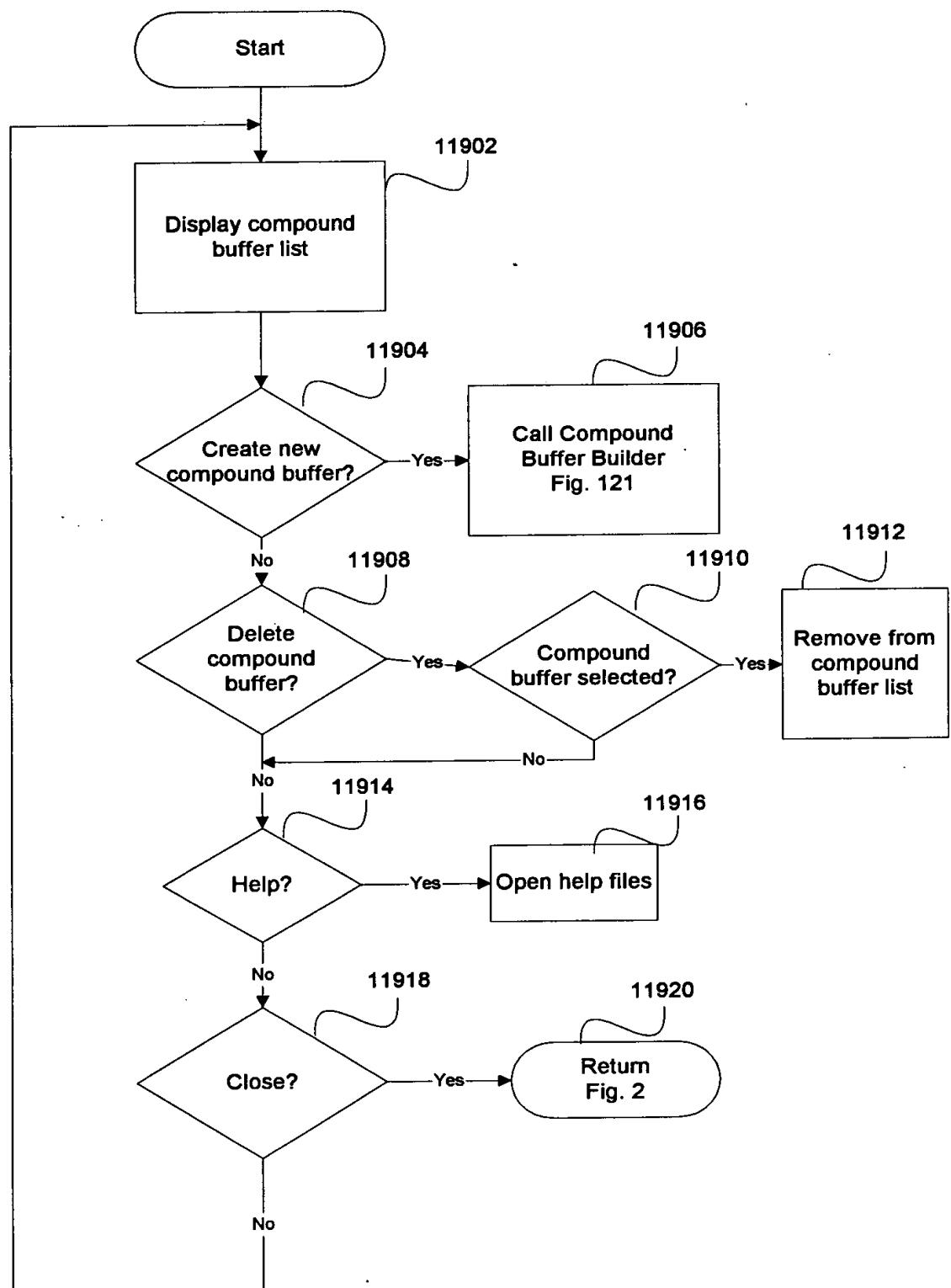
Delete 11802

Help... 11804

Close 11806

Fig. 118

0062185 0200200



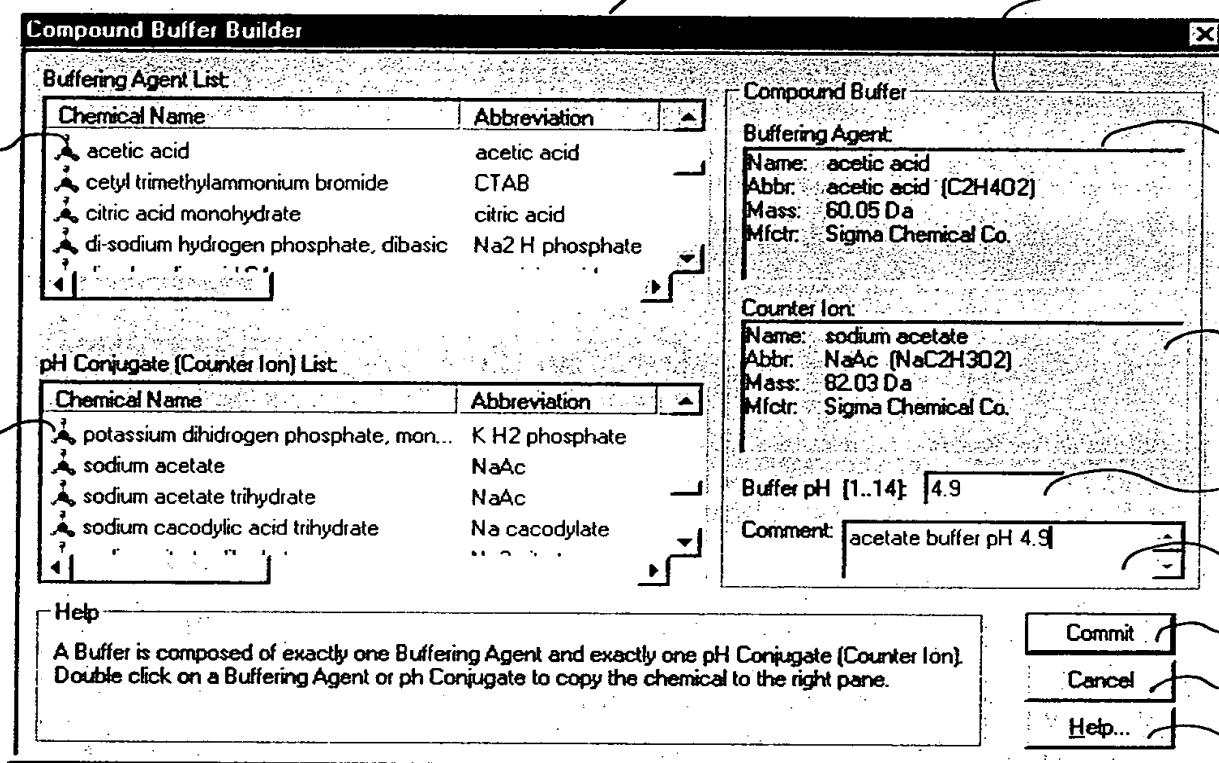


Fig. 120

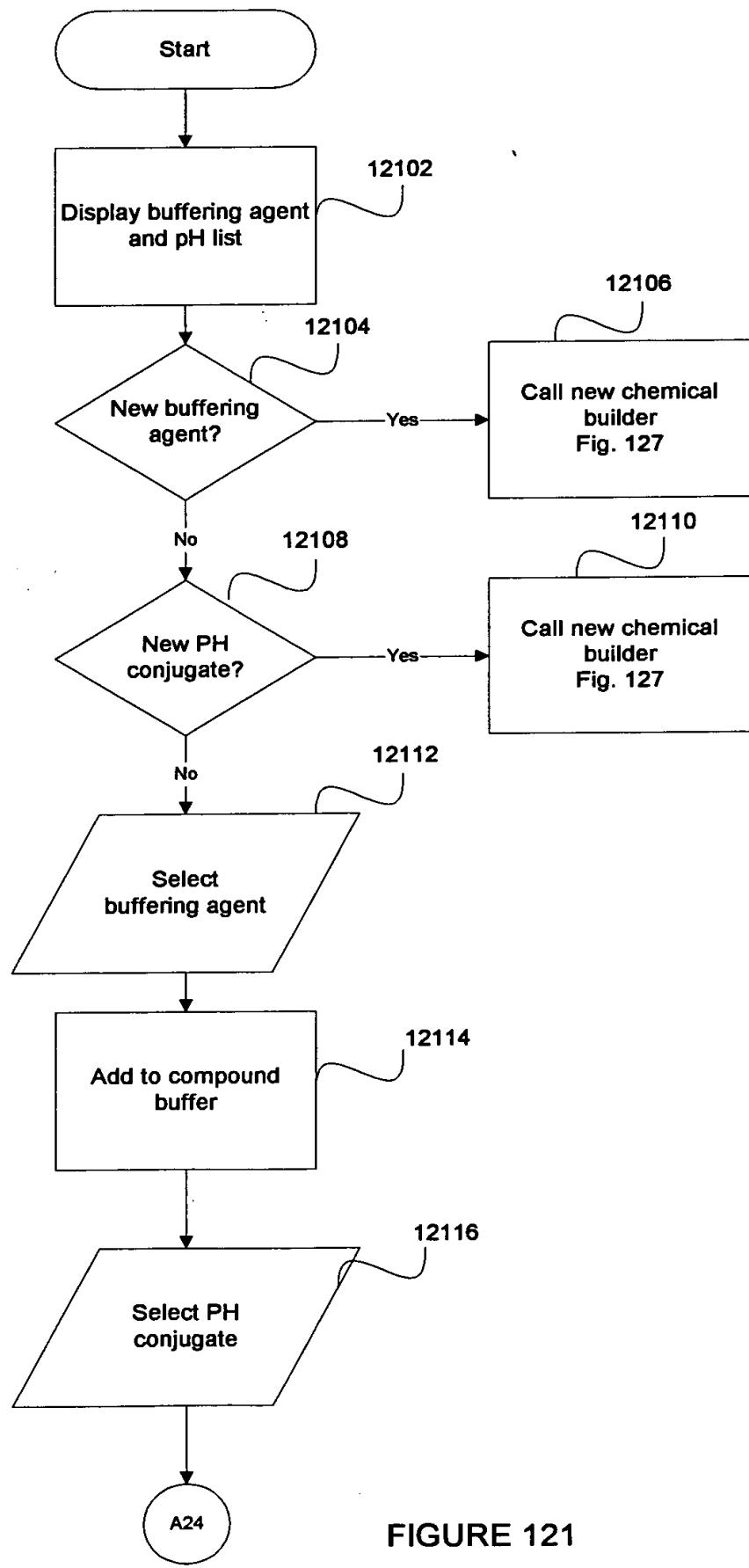


FIGURE 121

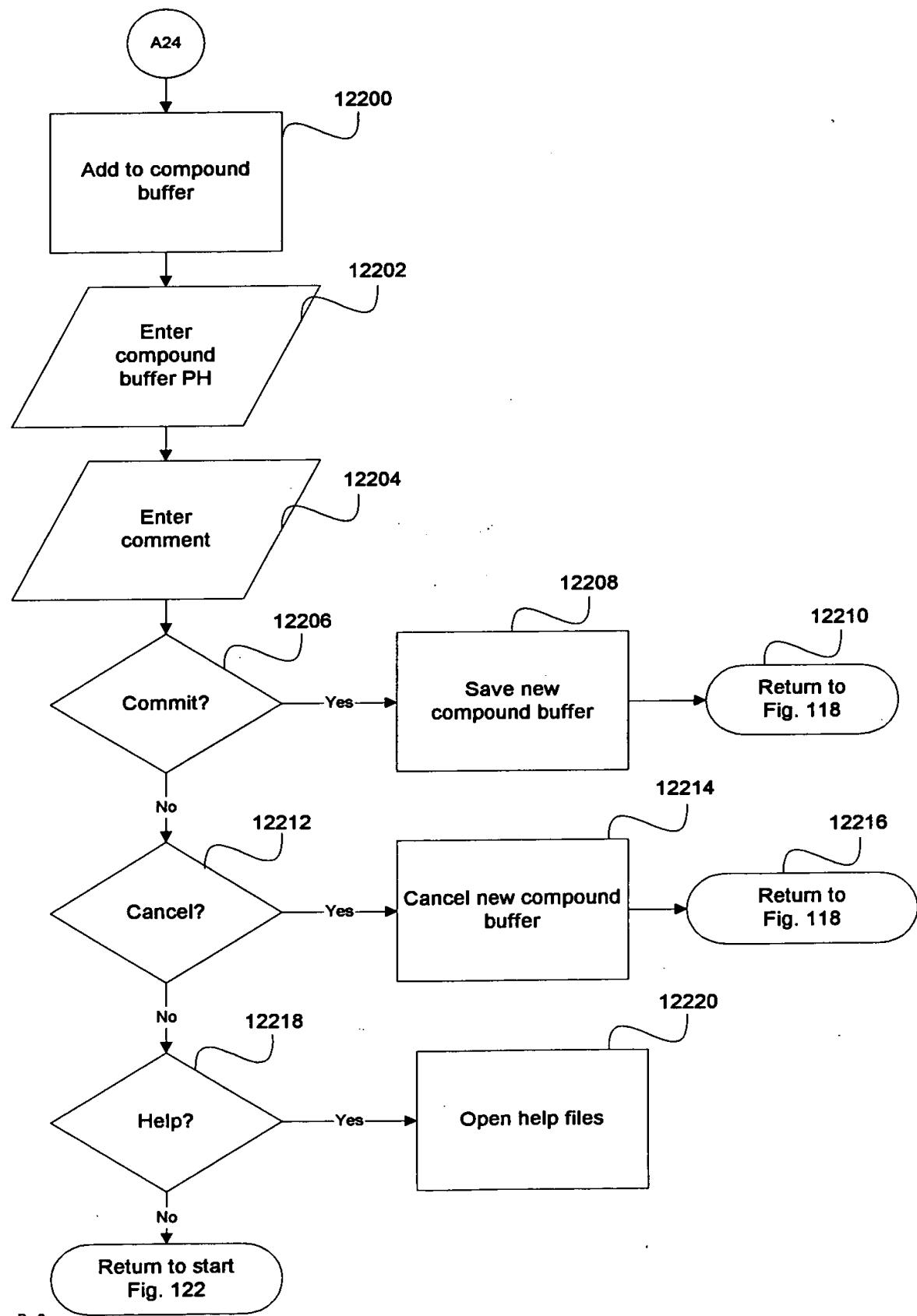
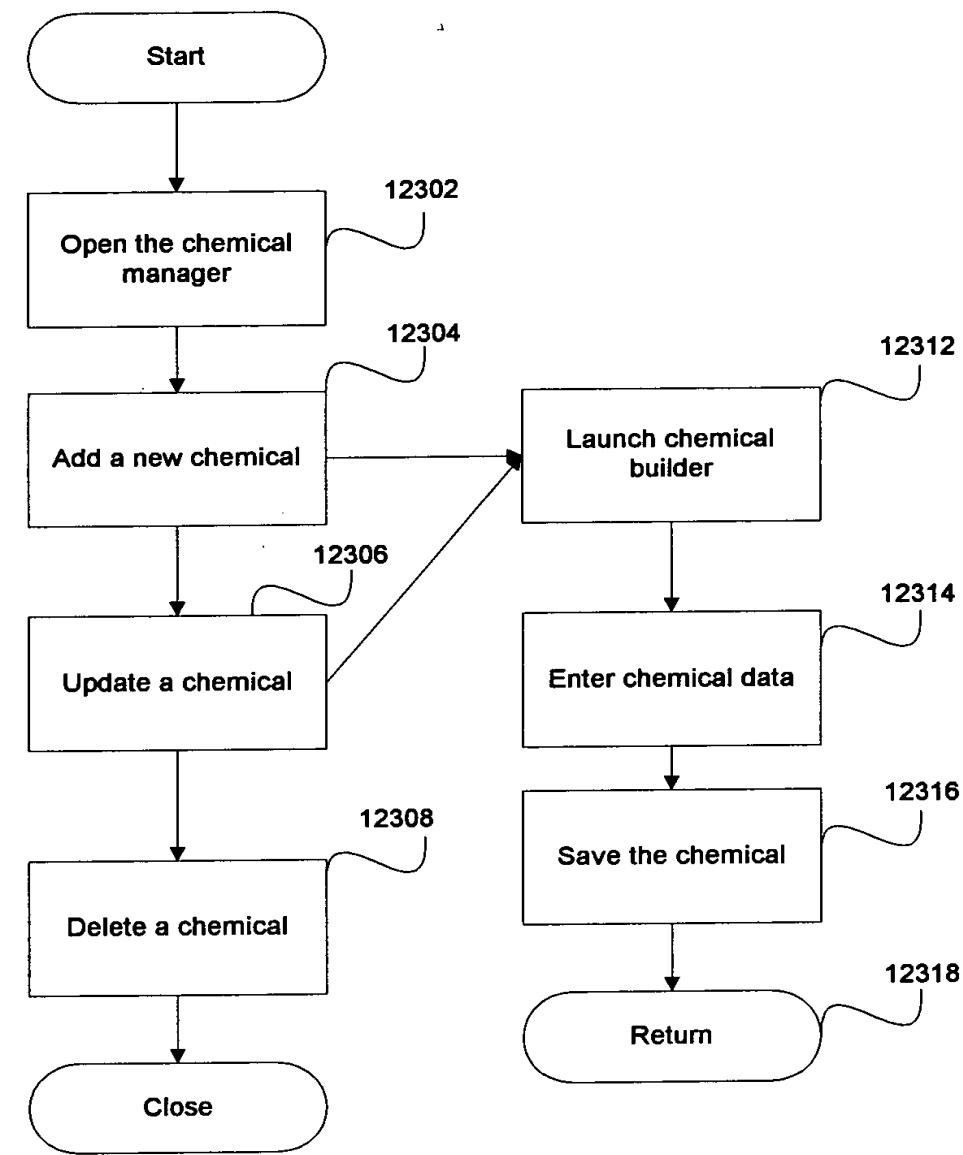


FIGURE 122





Chemical Manager

Category:

- Buffering Agent
- Chelator
- CryoCoolant
- CSI
- Detergent
- Gas
- HeavyAtomCompound
- Metal
- NucleationSuppressant
- Organic
- Other
- pHConjugate
- Precipitant
- ReducingAgent
- Salt
- Solvent

New...

Update...

Delete

Help...

X

Chemical Name	Abbr	Formula	Molecular Mass
1,2,3-heptanetriol	heptanetriol	C7H16O3	148.200 Da
1,2-propanediol	1,2-propanediol	C3H8O2	76.100 Da
1,2-propanediol	1,2-propanediol	C3H8O2	76.100 Da
1,4-butanediol	1,4-butanediol	C4H10O2	90.120 Da
1,4-dioxane	dioxane	C4H8O2	88.110 Da
1,6-hexanediol	hexanediol	C6H14O2	118.180 Da
2,5 hexanediol	hexanediol	CH3CH(OH)CH2...	118.180 Da
2,5-hexylene glycol	2,5-hexanediol	C6H14O2	118.180 Da
2-ethoxyethanol	2-ethoxyethanol	C4H10O2	90.120 Da
2-methyl-2,4-pentaned...	MPD	C6H14O2	118.180 Da
2-methyl-2,4-pentaned...	MPD	C6H14O2	118.180 Da
2-propanol	isopropanol	C3H8O	60.100 Da
2-propanol	isopropanol	C3H8O	60.100 Da
2-propanol	isopropanol	C3H8O	60.100 Da
2-propanol	isopropanol	C3H8O	60.100 Da

Select a chemical and click one of the top buttons or double click on a chemical to update.

Close

Fig. 124

12501

12510

12524

12508

12520

12518

12528

12530

STOP

OK

Cancel

New Chemical

Name:	ammonium sulfate
Abbr:	(NH ₄) ₂ SO ₄
Formula:	(NH ₄) ₂ SO ₄
Mass:	132.1 Da
Chemical Type:	Precipitant
Density [g/ml]:	12512
Manufacturer:	Sigma Chemical Co.
Catalog:	A4915
CAS:	7783-20-2

Warning
Catalog and CAS cannot be updated, once they have been entered, since they are the primary key for the chemical entity.

Fig. 125

00000000000000000000000000000000

002040 "S87TE360

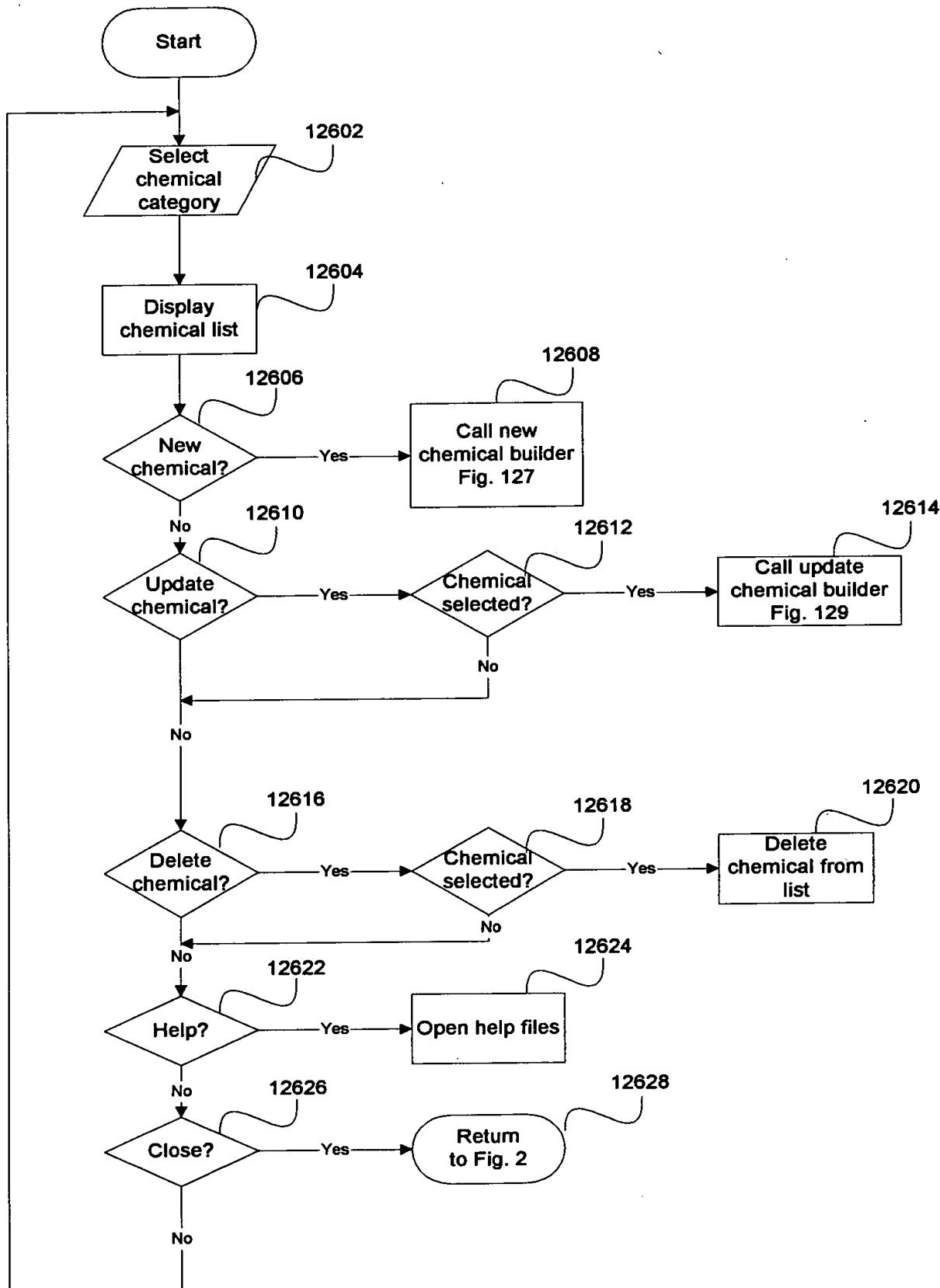


FIGURE 126

00000000000000000000000000000000

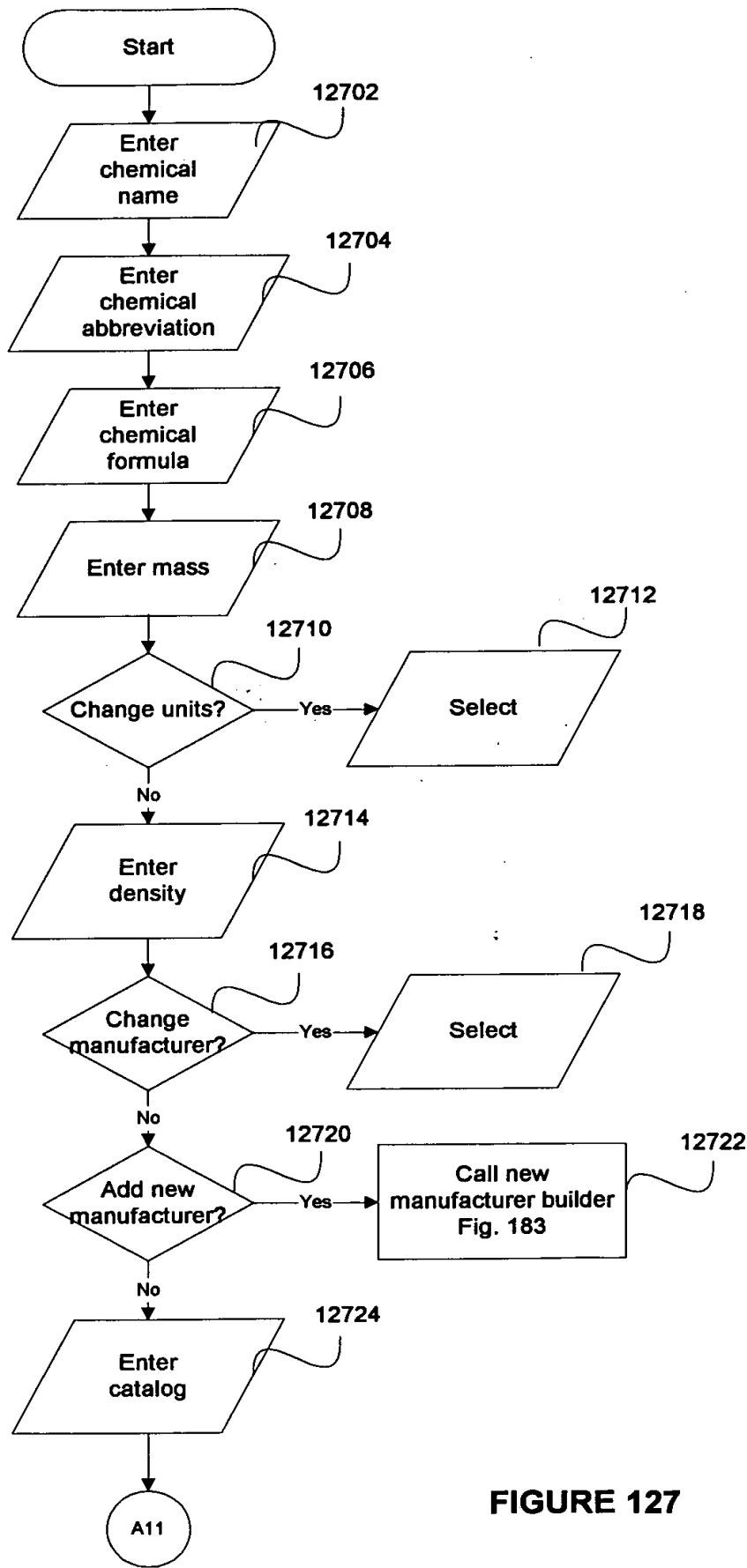


FIGURE 127

002000 "SEPTF960

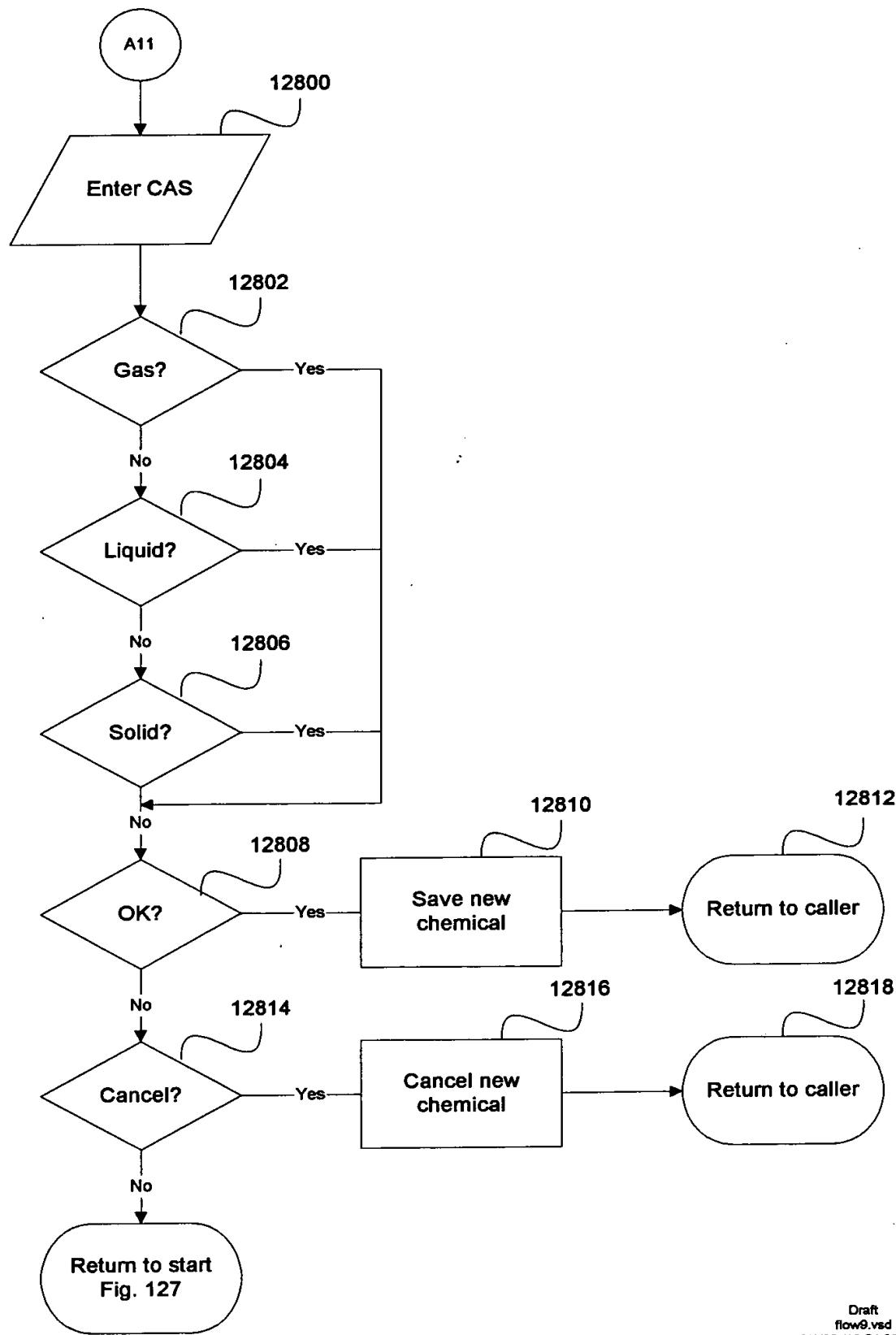


FIGURE 128

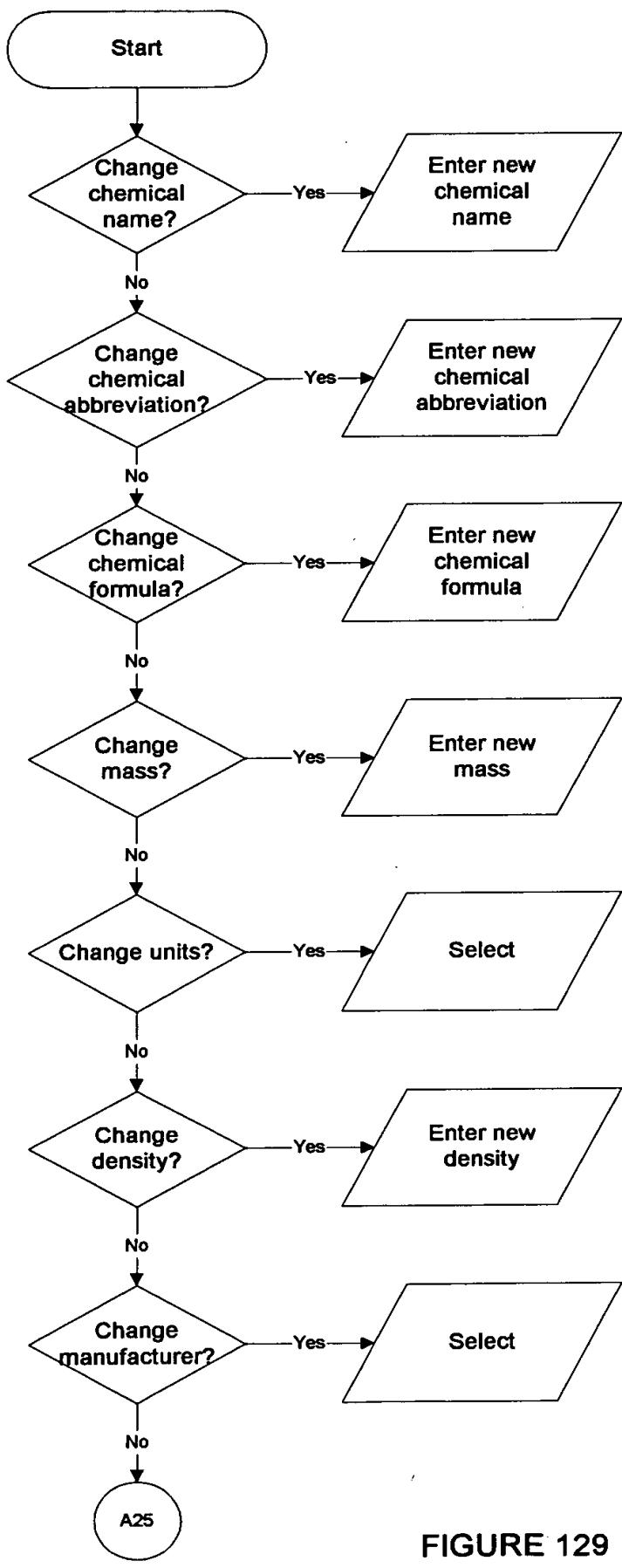


FIGURE 129

09631185 - 030200

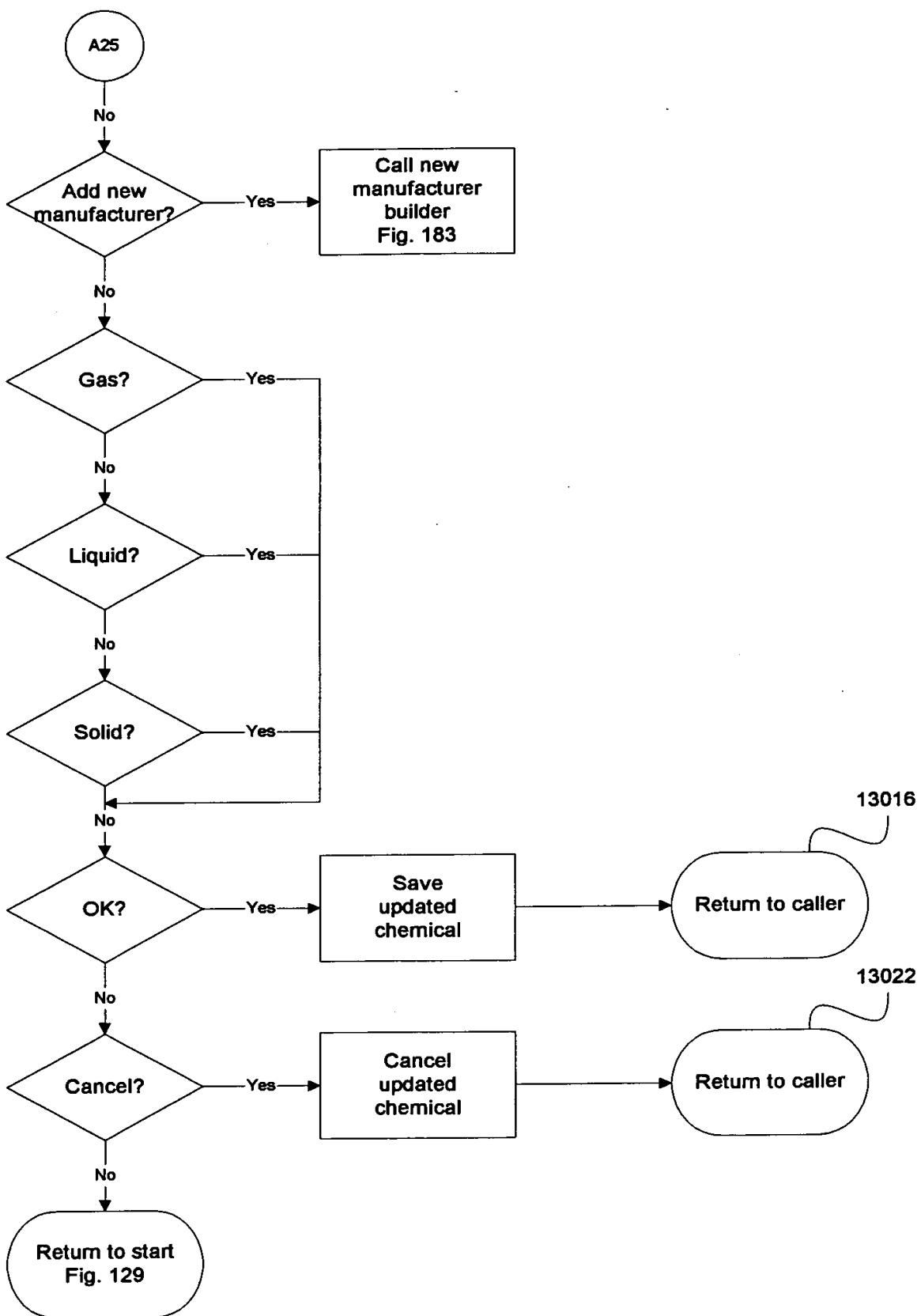


FIGURE 130

00000000-0000-0000-0000-000000000000

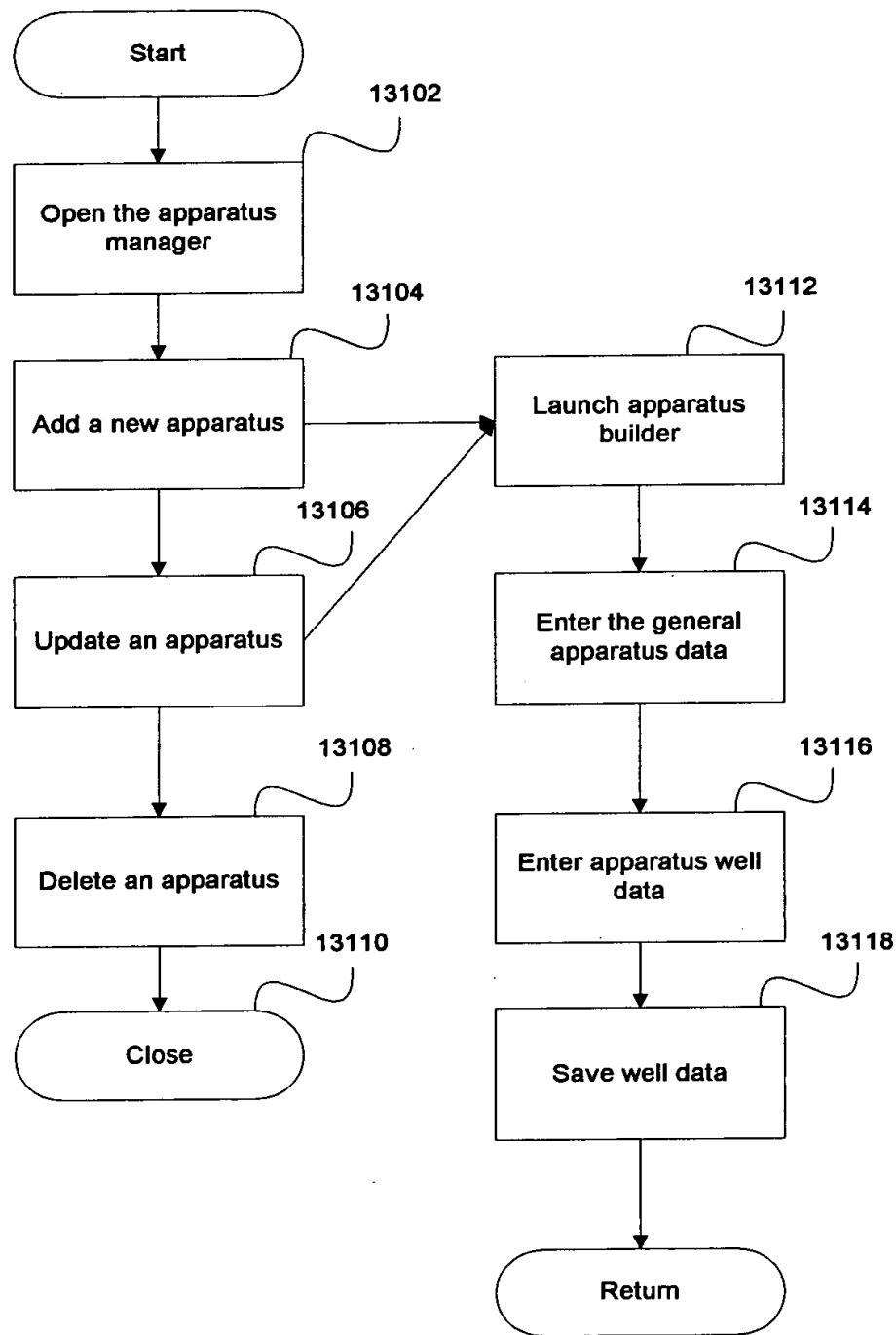


FIGURE 131

13200

Apparatus Manager

Name	Cols	Rows	Attachment	Comment
Charles Supper plate	6	4		Cryschem Plate
CombiClover	12	8		Clover Leaf Plat
CompactClover	12	8		Clover Leaf Plat
Costar plate	6	4		
Cryschem plate	6	4		
Linbro plate	6	4		Linbro Plate
Q Plate	6	4		
Q Plate II	6	4		
VDX plate	6	4		
VDX plate 4x combi	12	8		
VDX plate greased	6	4		
VDX plate greased 4x combi	12	8		

New... 13202
Update... 13204
Delete 13206
Help... 13208
Close 13210

Fig. 132

000000000000000000000000

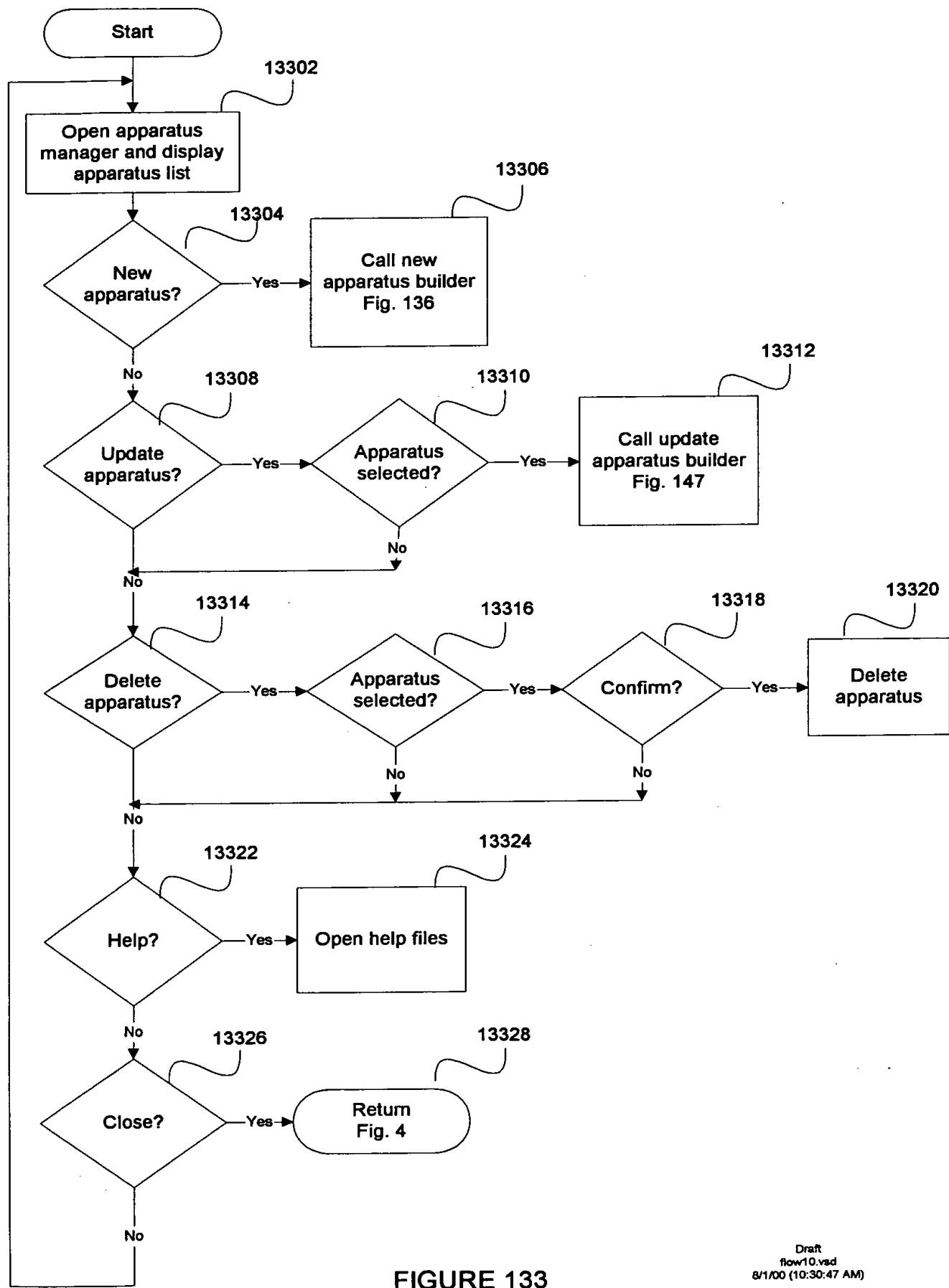


FIGURE 133

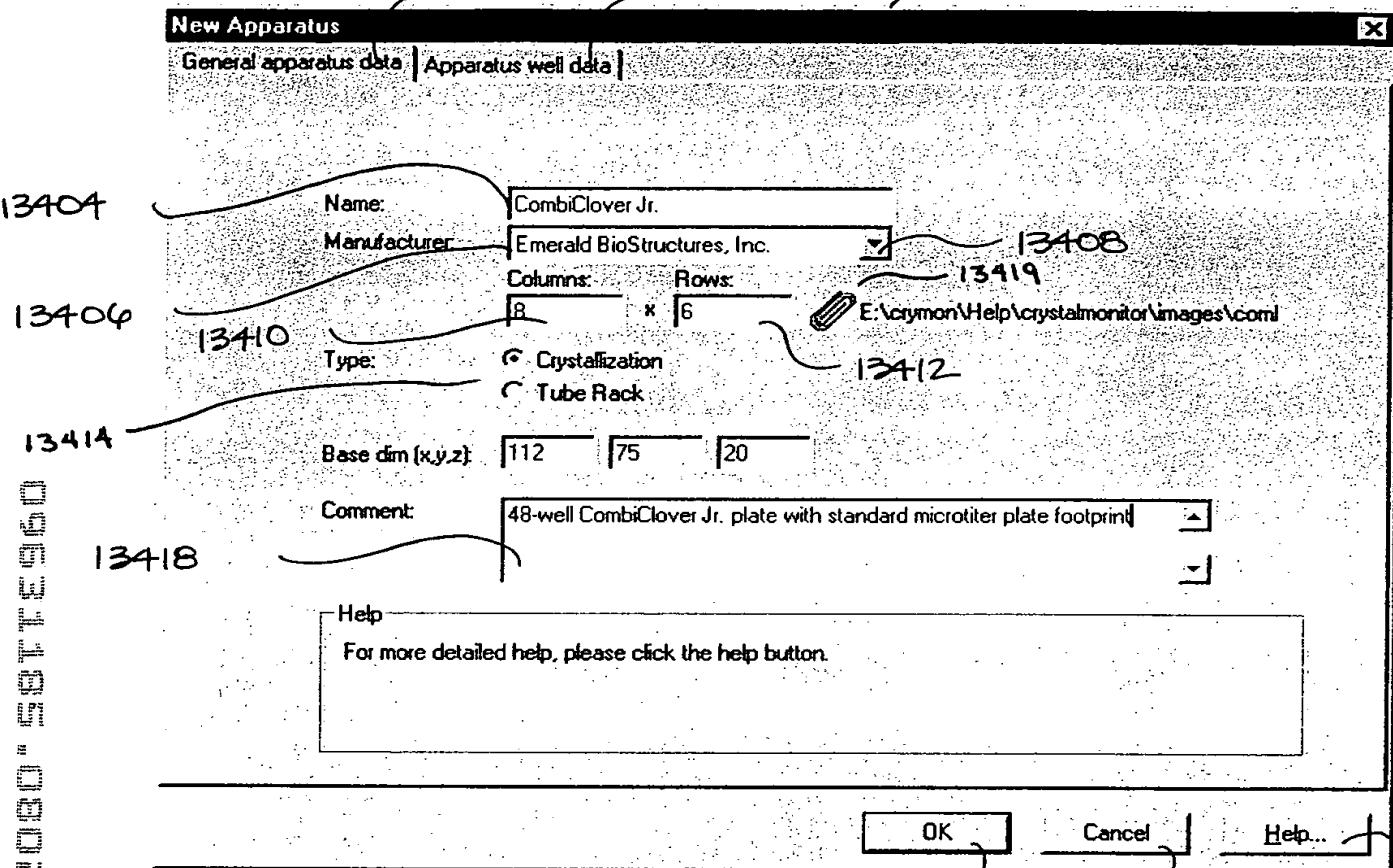


FIG. 134

0000000000000000

13500

New Apparatus

General apparatus data Apparatus well data

AutoFill... 13501

1	x y z	2	x y z	3	x y z	4	x y
9	x y z	10	x y z	11	x y z	12	x y
17	x y z	18	x y z	19	x y z	20	x y

Drop:
Res:
Drop Diameter:
Res Diameter:
Max Vol Drop:
Max Vol Res:

Drop:
Res:
Drop Diameter:
Res Diameter:
Max Vol Drop:
Max Vol Res:

Drop:
Res:
Drop Diameter:
Res Diameter:
Max Vol Drop:
Max Vol Res:

Drop:
Res:
Drop Diameter:
Res Diameter:
Max Vol Drop:
Max Vol Res:

Drop:
Res:
Drop Diameter:
Res Diameter:
Max Vol Drop:
Max Vol Res:

Drop:
Res:
Drop Diameter:
Res Diameter:
Max Vol Drop:
Max Vol Res:

D_{min}: 13502

OK Cancel Help... 13504 13506

FIG. 135

000000000000000000000000

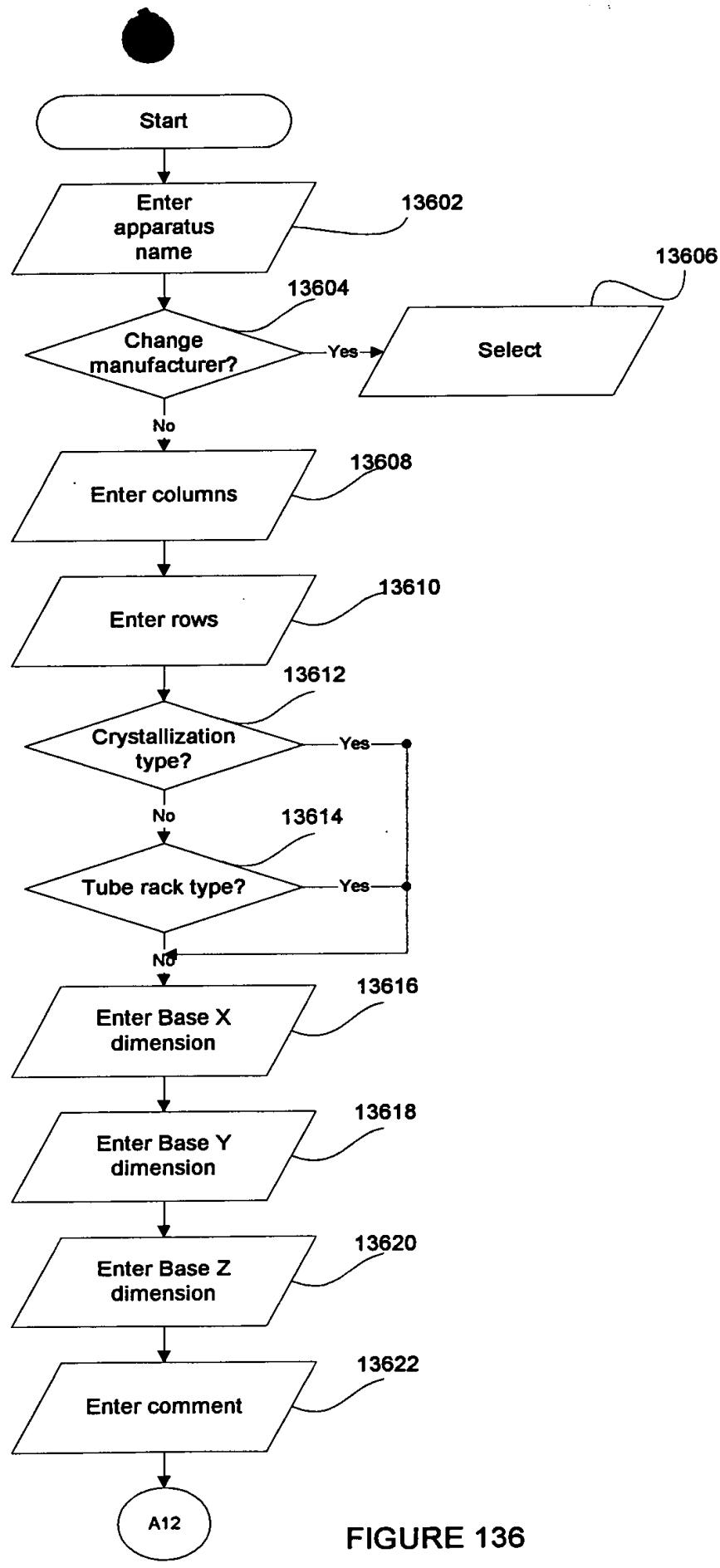


FIGURE 136

0000000000000000

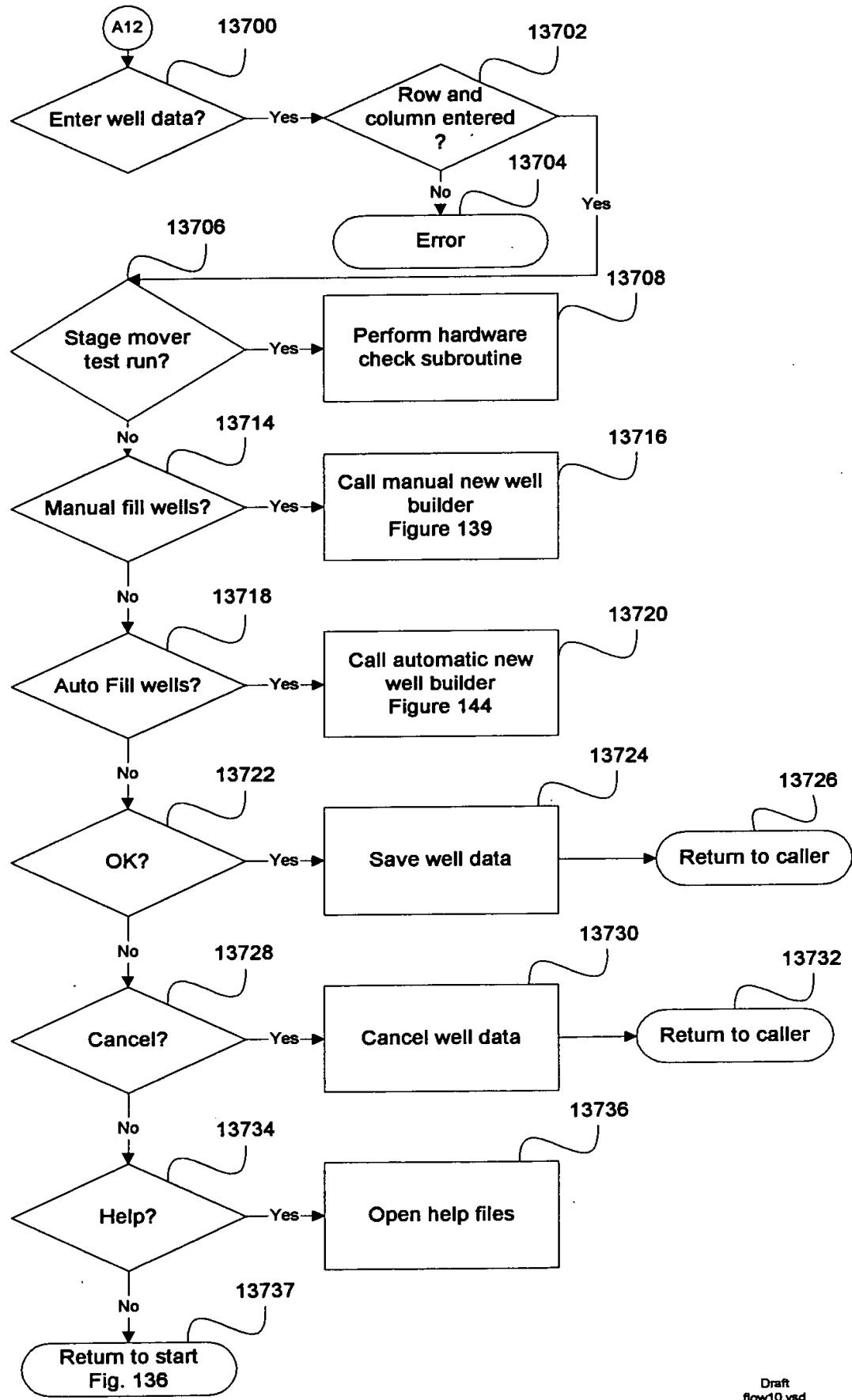


FIGURE 137

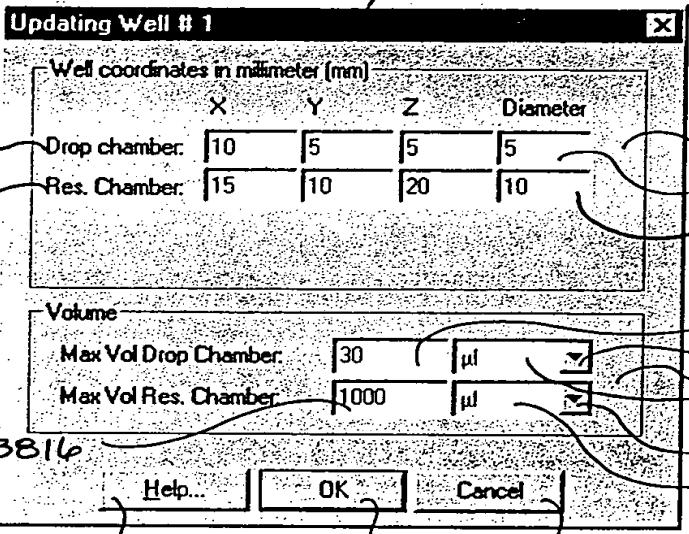


Fig. 138

00000000000000000000000000000000

13804
13808

13801
13806
13809

13810
13812
13802
13814
13820
13818

13822

13824

13826

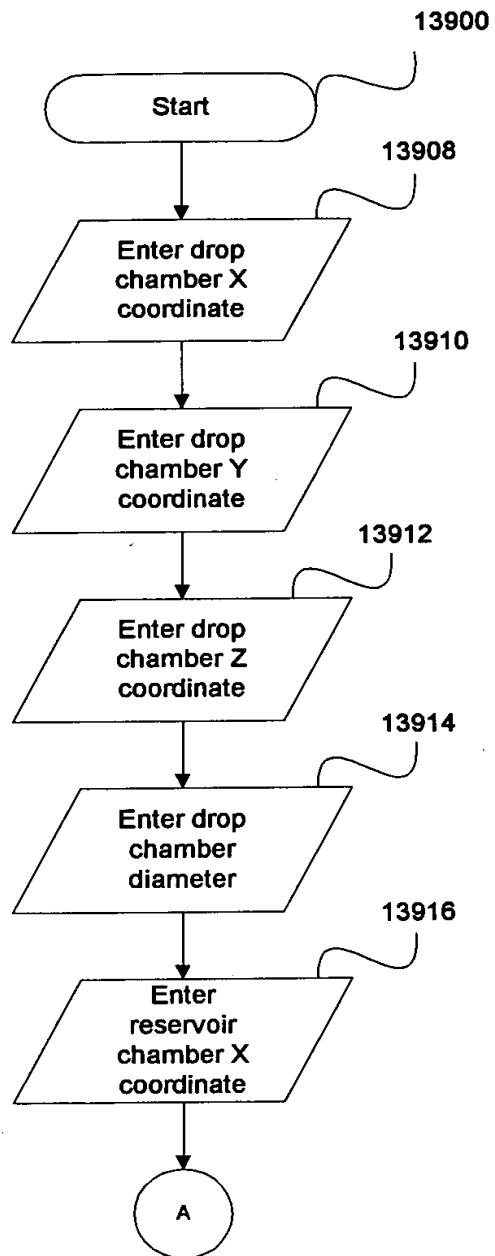


FIGURE 139

000000000000000000000000

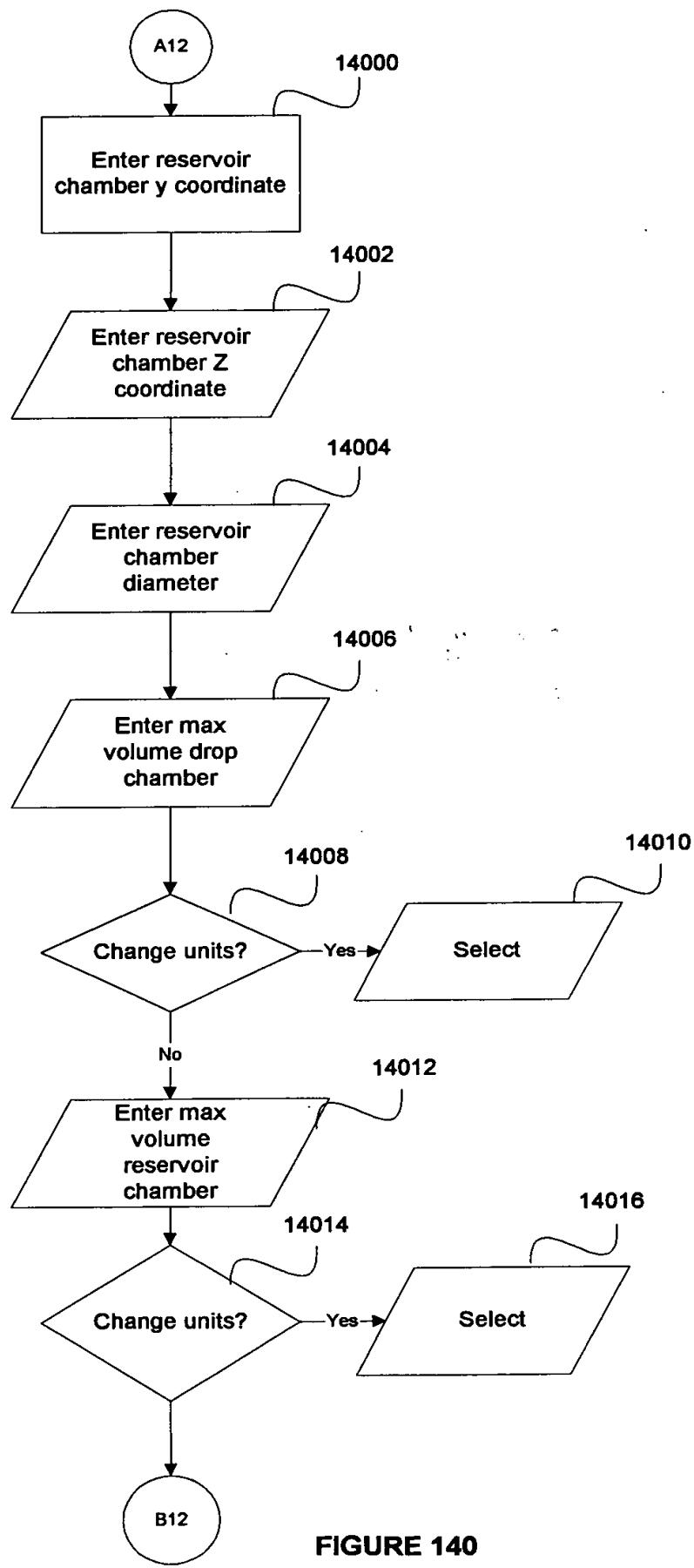


FIGURE 140

000000000000000000000000

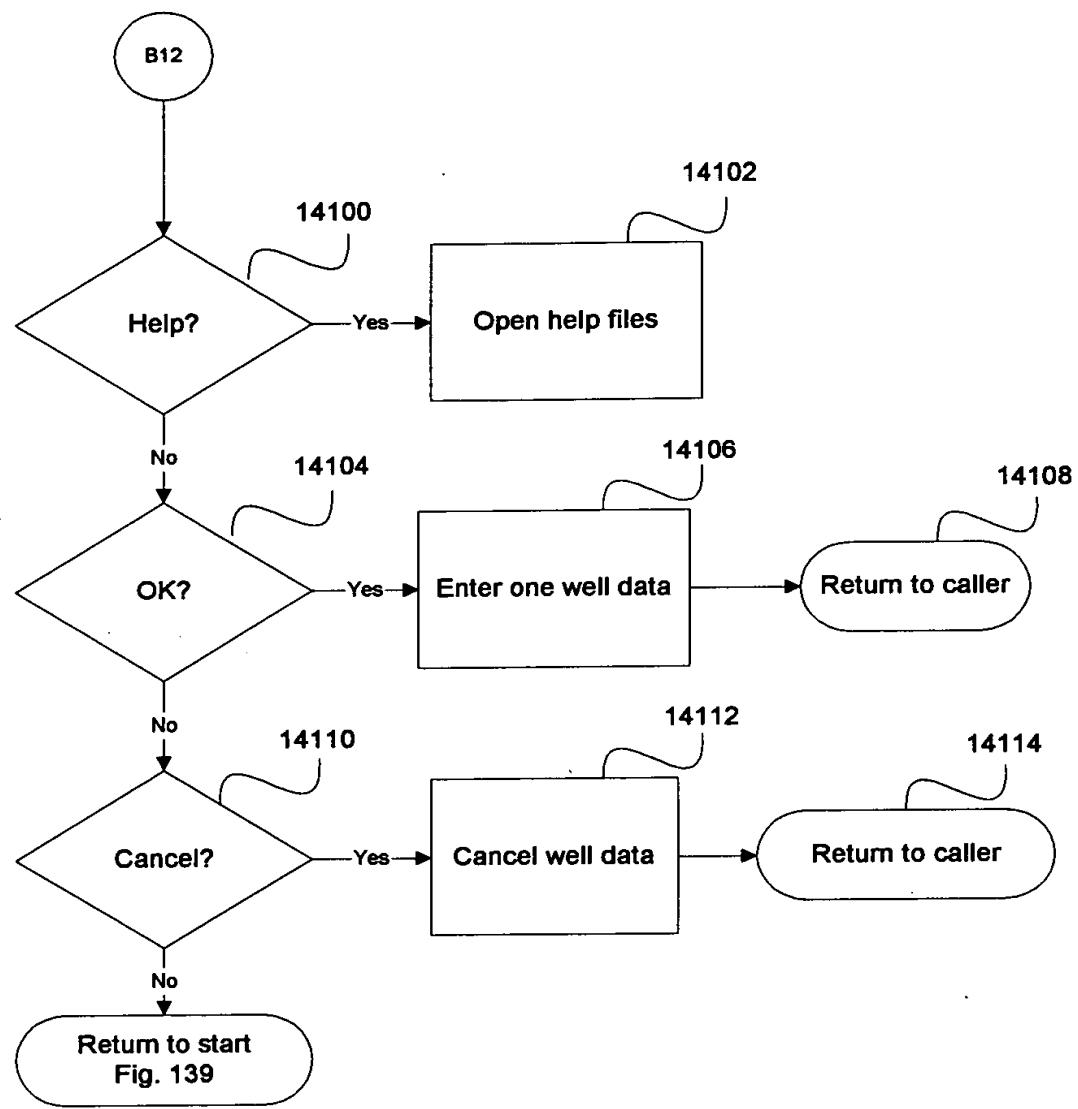


FIGURE 141

09631185 - 080200

14202

14208

14214

14201

14204

14200

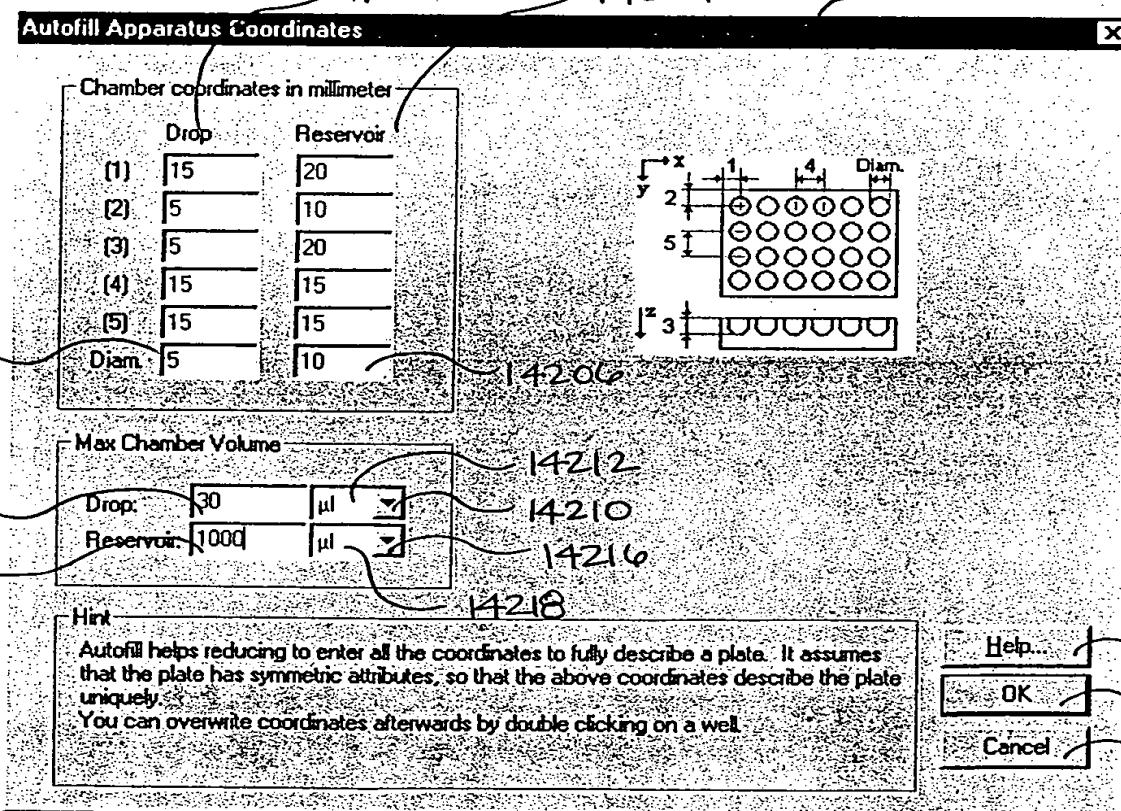


FIG. 142

0063185 - 000200

New Apparatus

General apparatus data Apparatus well data

	x	y	z		x	y	z		x	y		x	y		
1	15	5	5	Drop:	25	5	5	Drop:	35	5	5	Drop:	45	5	
	Res:	20	10	20	Res:	30	10	20	Res:	40	10	20	Res:	50	10
	Drop Diameter:	5		Drop Diameter:	5		Drop Diameter:	5		Drop Diameter:	5		Drop Diameter:	5	
	Res Diameter:	10		Res Diameter:	10		Res Diameter:	10		Res Diameter:	10		Res Diameter:	10	
	Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l	
	Max Vol Res:			Max Vol Res:			Max Vol Res:			Max Vol Res:			Max Vol Res:		
9	15	15	5	Drop:	25	15	5	Drop:	35	15	5	Drop:	45	15	
	Res:	20	20	Res:	30	20	20	Res:	40	20	20	Res:	50	20	
	Drop Diameter:	5		Drop Diameter:	5		Drop Diameter:	5		Drop Diameter:	5		Drop Diameter:	5	
	Res Diameter:	10		Res Diameter:	10		Res Diameter:	10		Res Diameter:	10		Res Diameter:	10	
	Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l		Max Vol Drop:	30.000 μ l	
	Max Vol Res:			Max Vol Res:			Max Vol Res:			Max Vol Res:			Max Vol Res:		
17	15	25	5	Drop:	25	25	5	Drop:	35	25	5	Drop:	45	25	
18				Drop:				Drop:				Drop:			
19				Drop:				Drop:				Drop:			
20				Drop:				Drop:				Drop:			

OK **Cancel** **Help...**

14300

14302

14304

Fig. 143

09021105 - 022080200

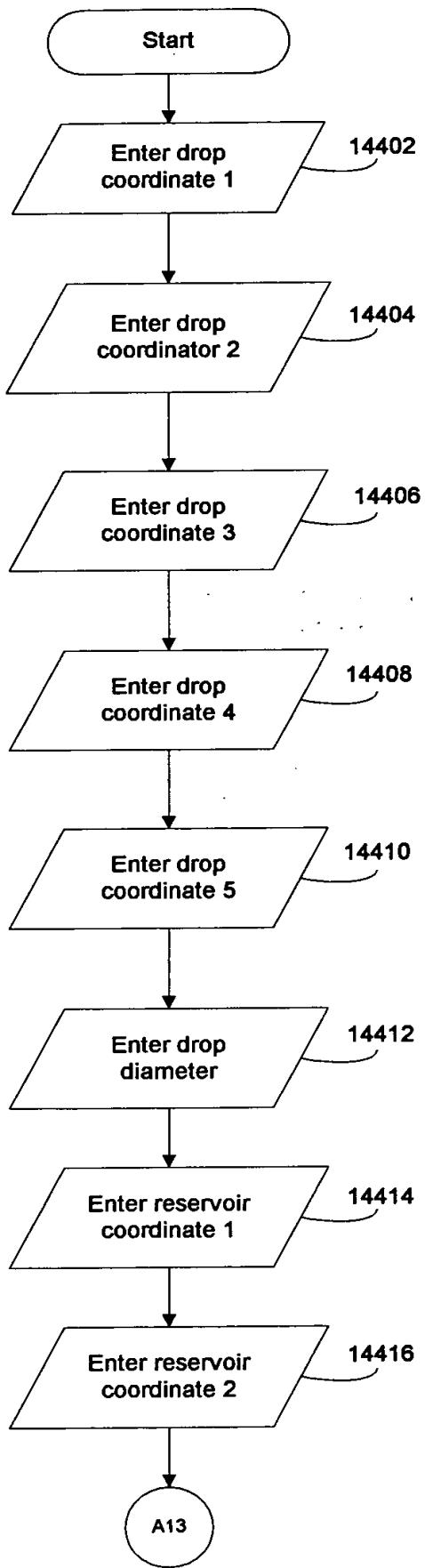


FIGURE 144

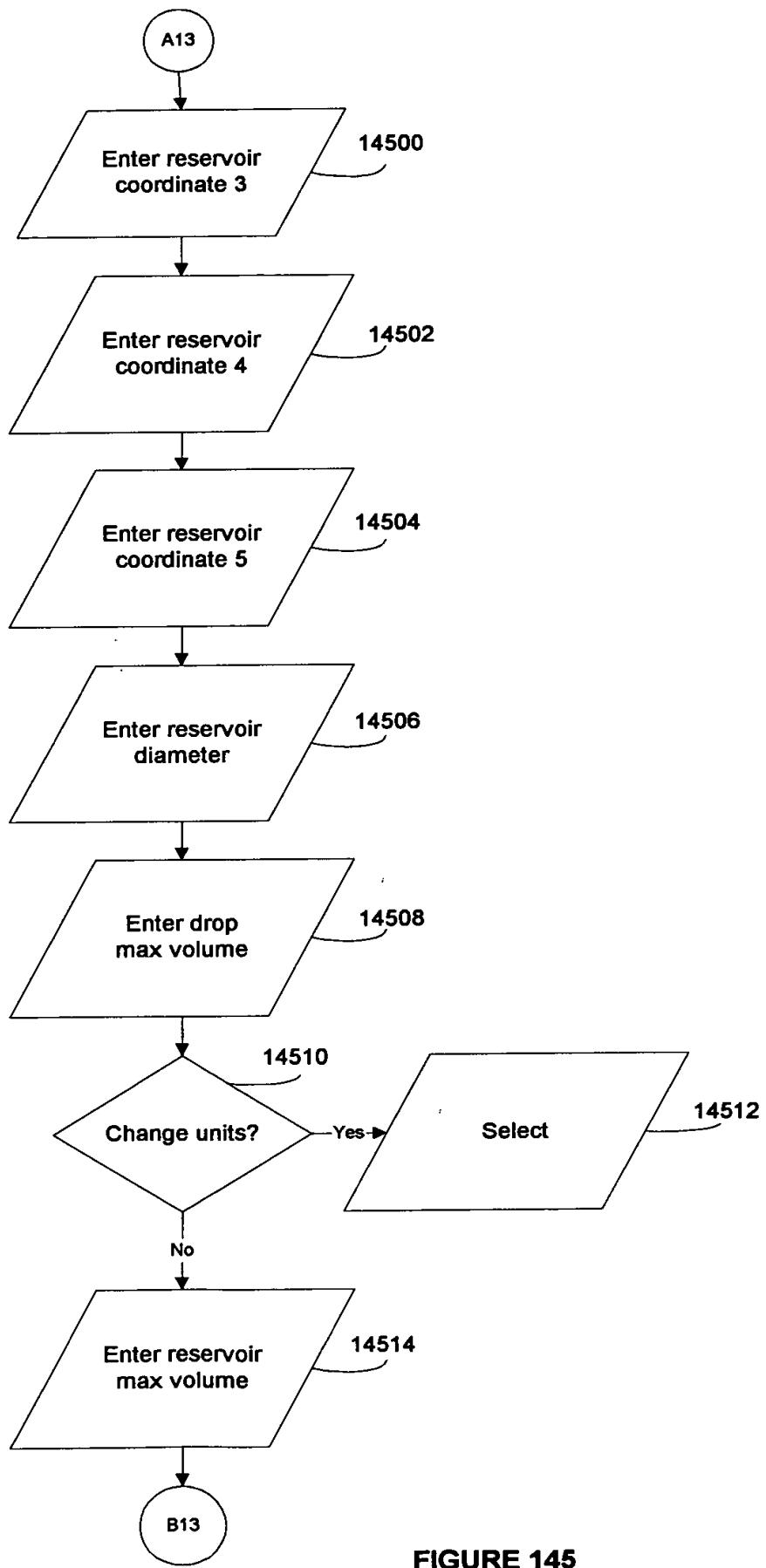


FIGURE 145

000000000000000000000000

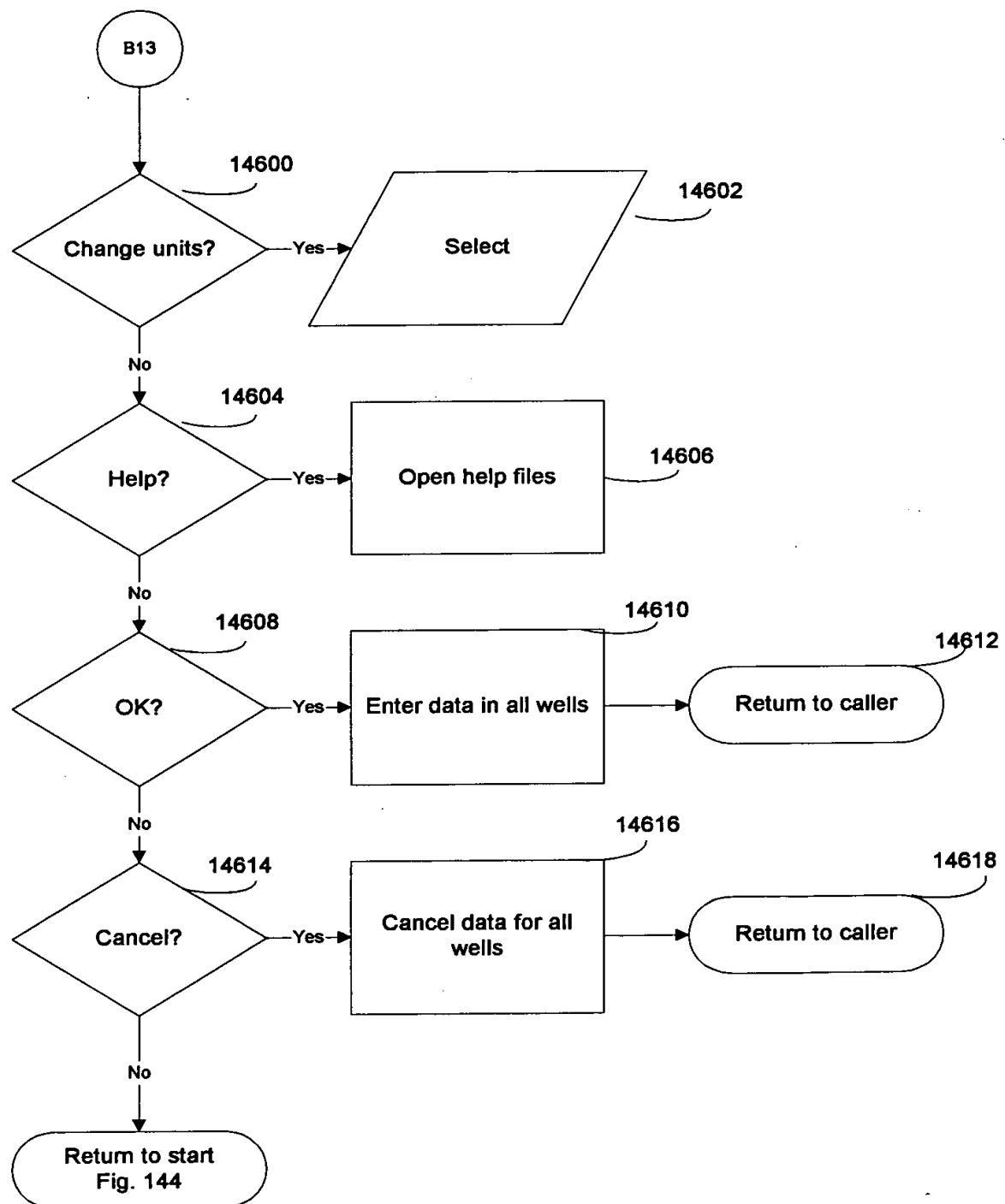


FIGURE 146

DO NOT REPRODUCE

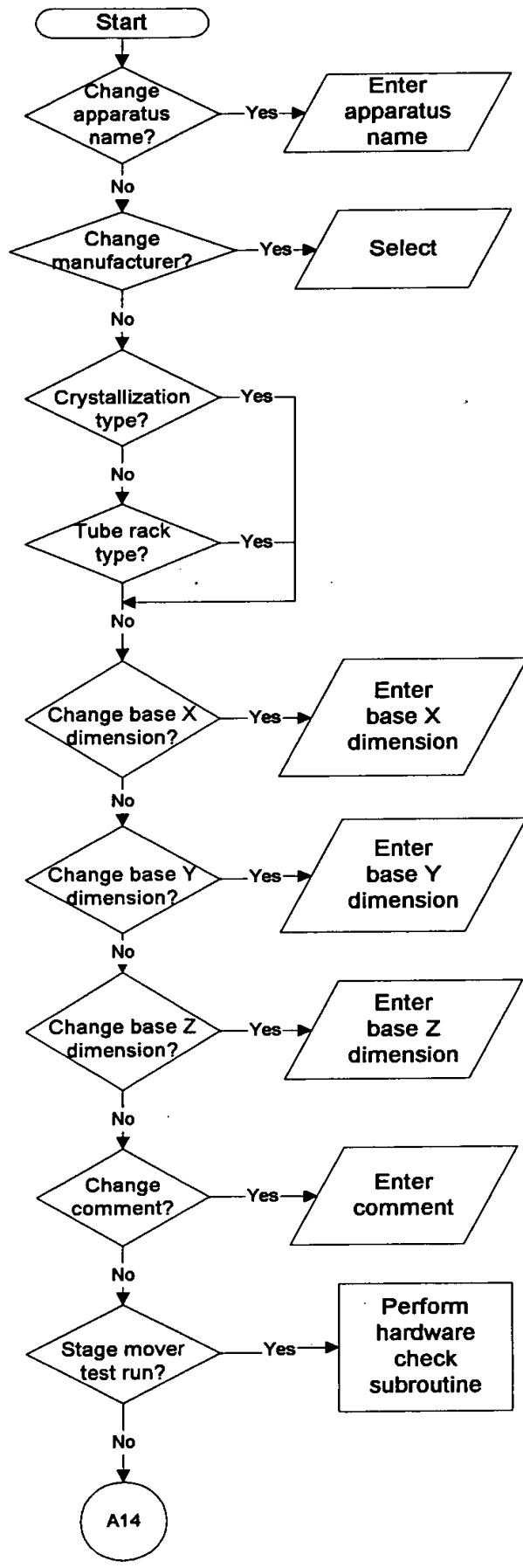


FIGURE 147

00000000000000000000

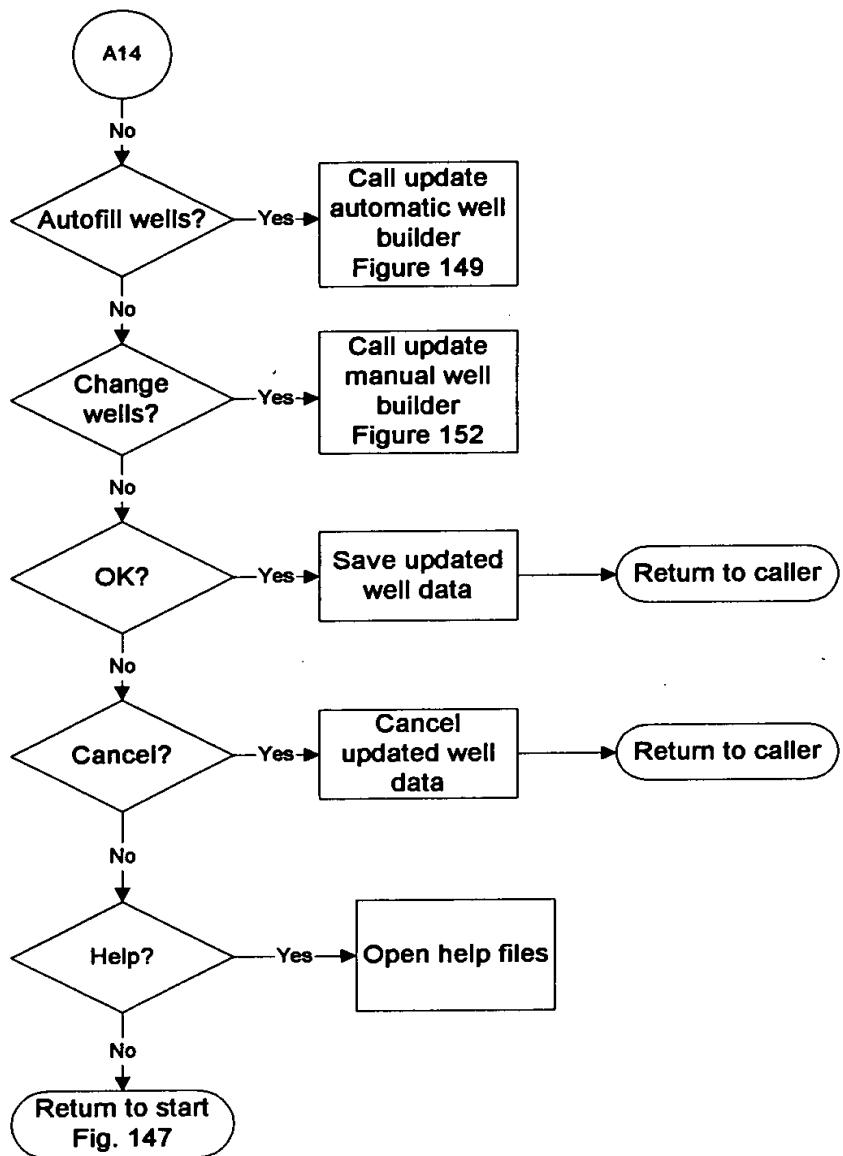
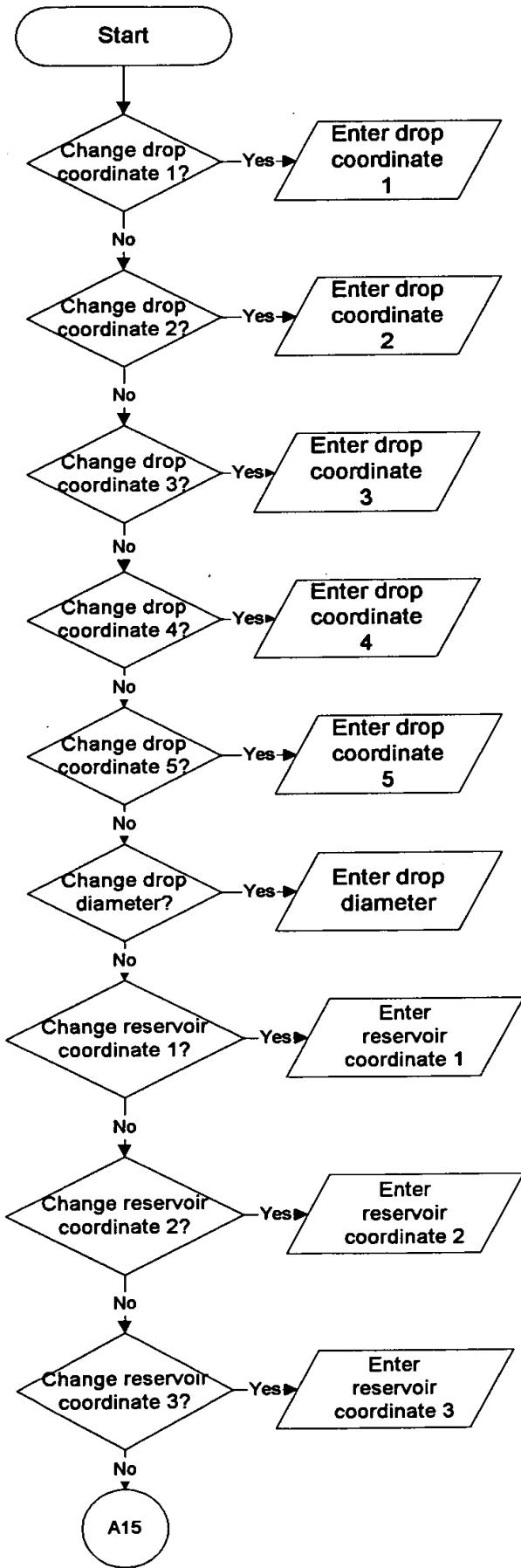


FIGURE 148



00651185 - 000200

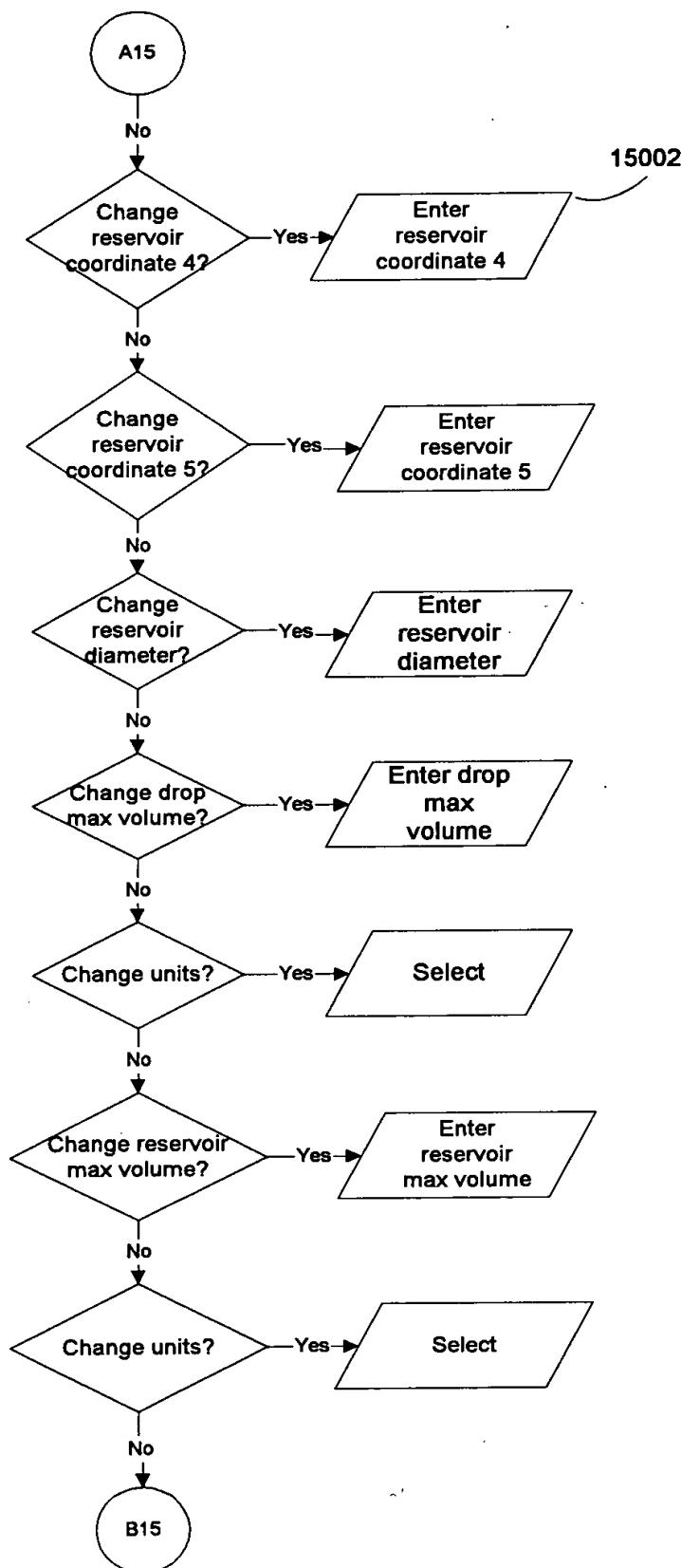


FIGURE 150

000000000000000000000000

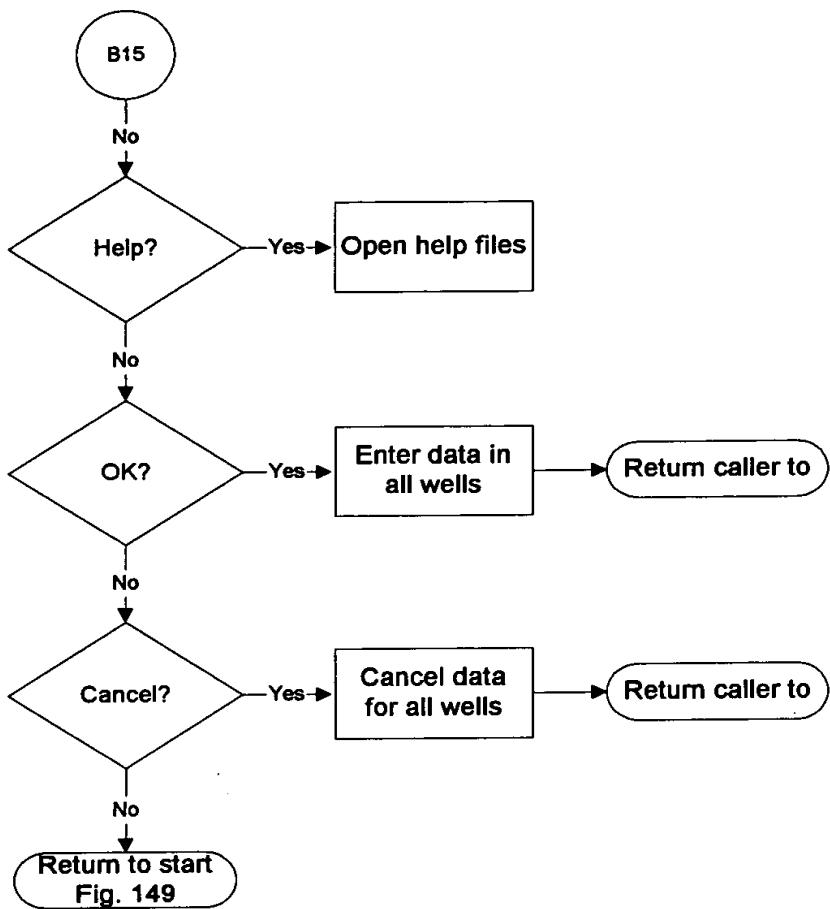


FIGURE 151

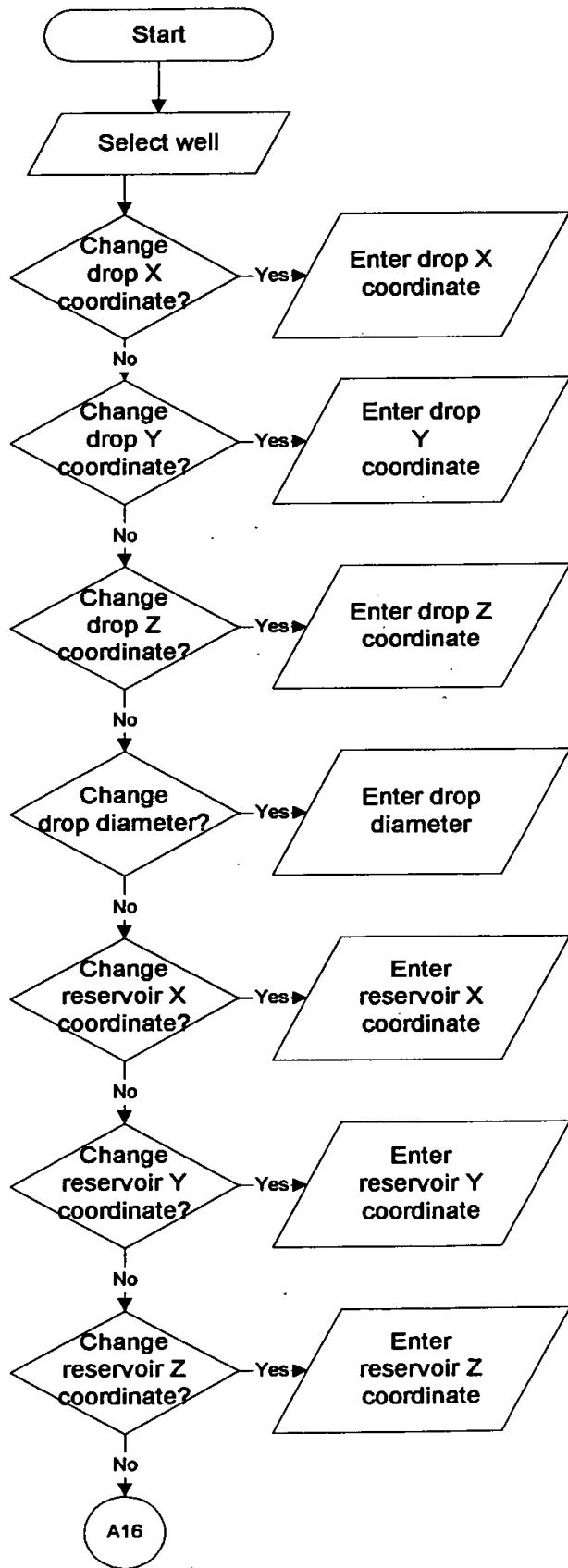


FIGURE 152

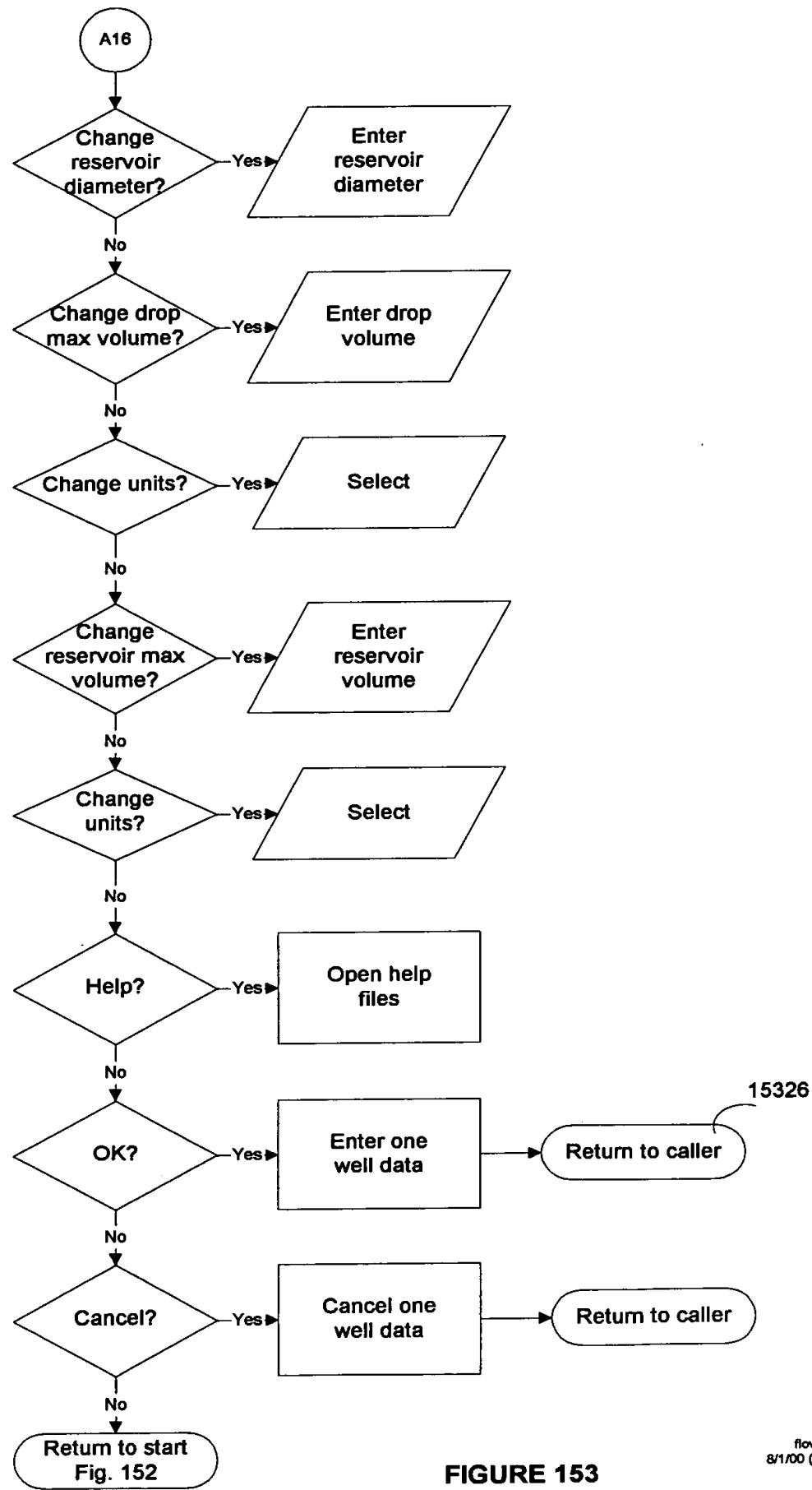
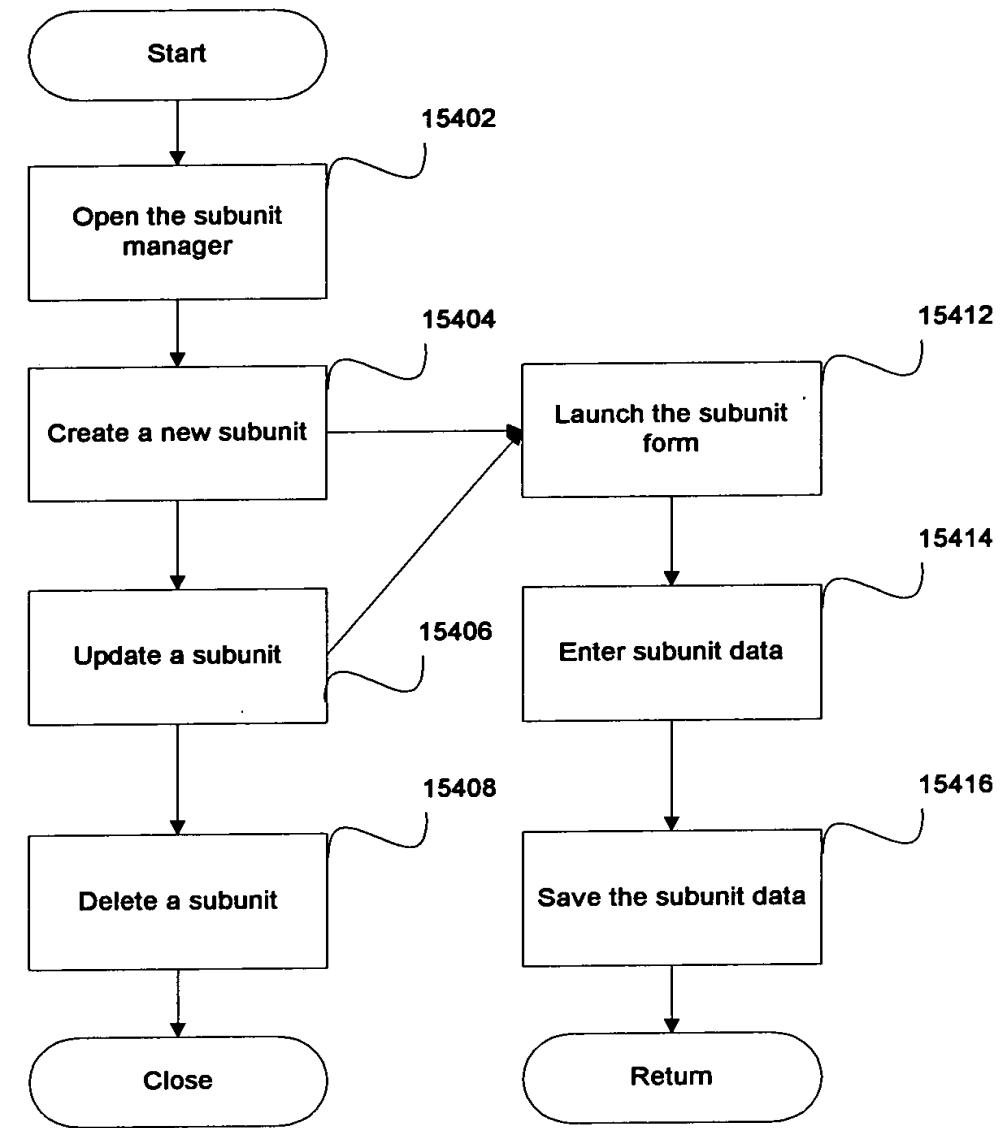


FIGURE 153

0000110000 - 0000200



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flow15.vsd
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FIGURE 154

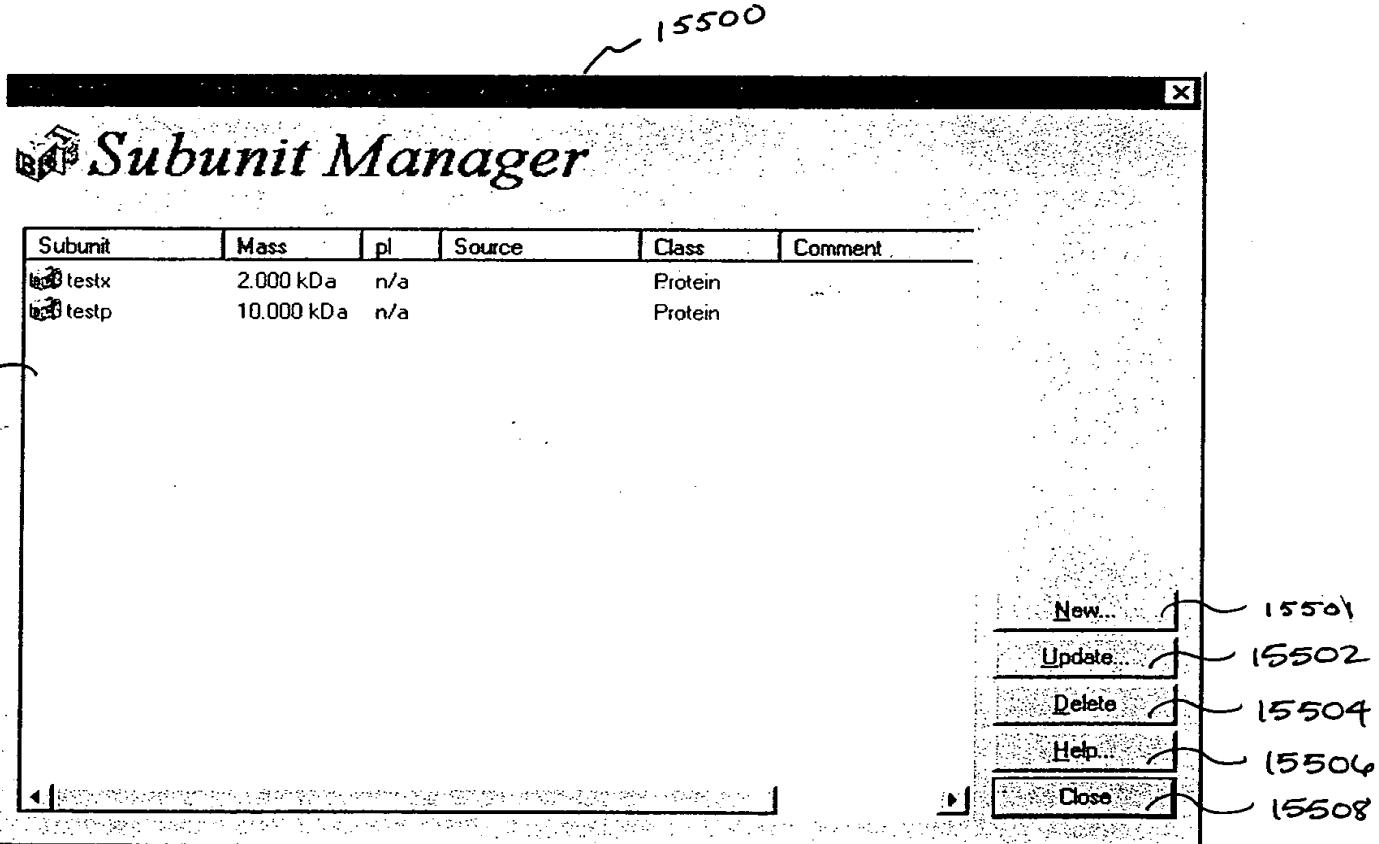


Fig. 155

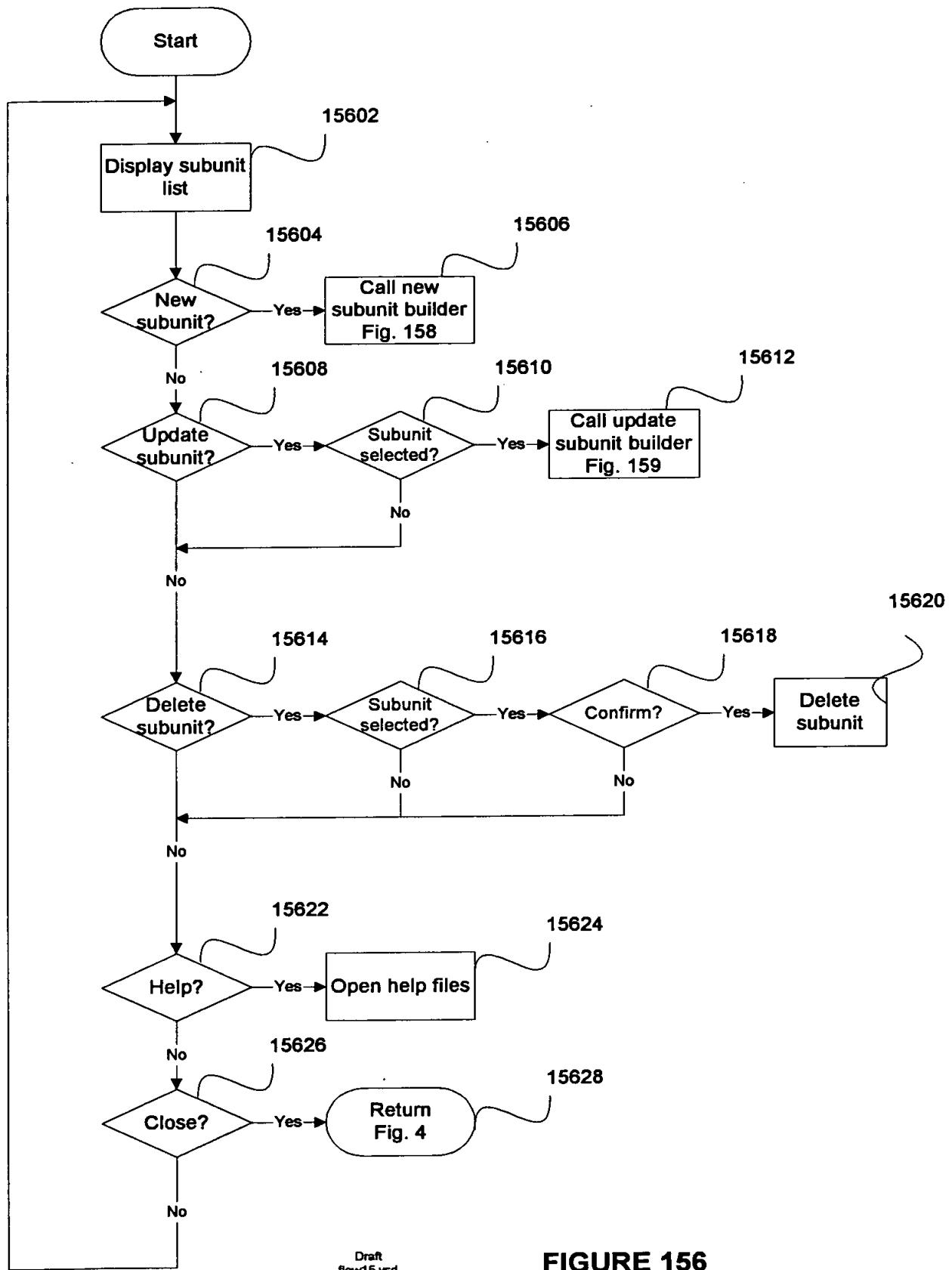


FIGURE 156

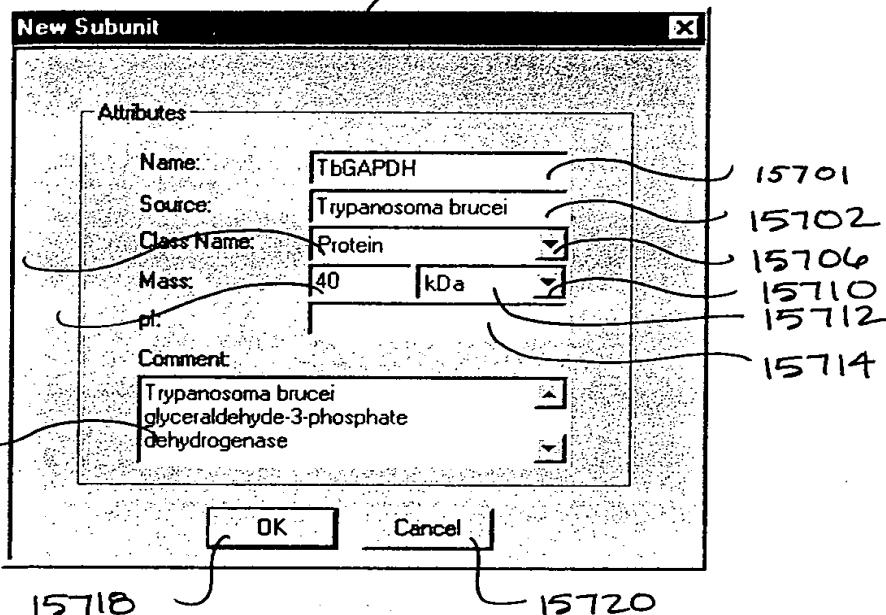


Fig. 157

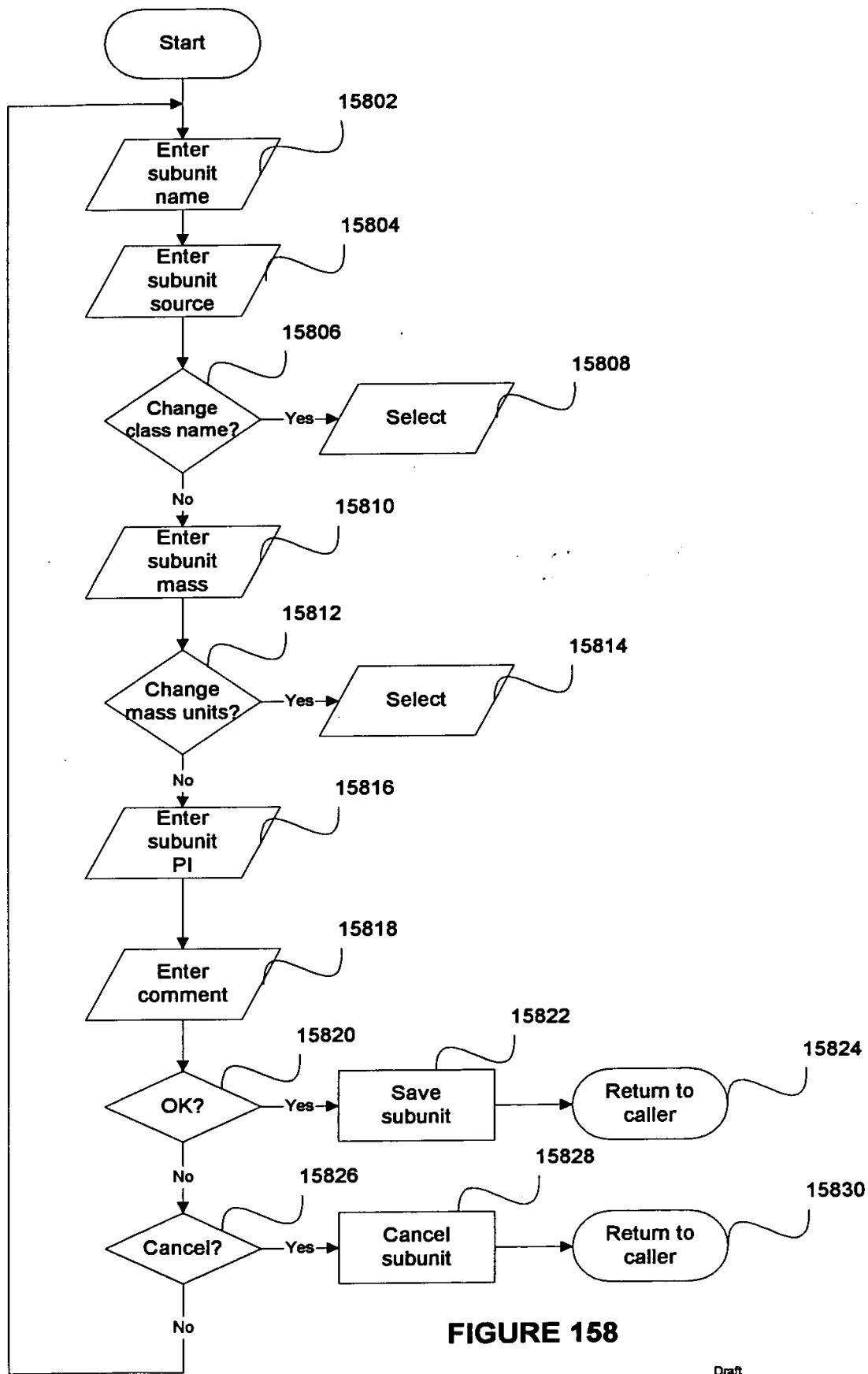


FIGURE 158

09554755 - 090200

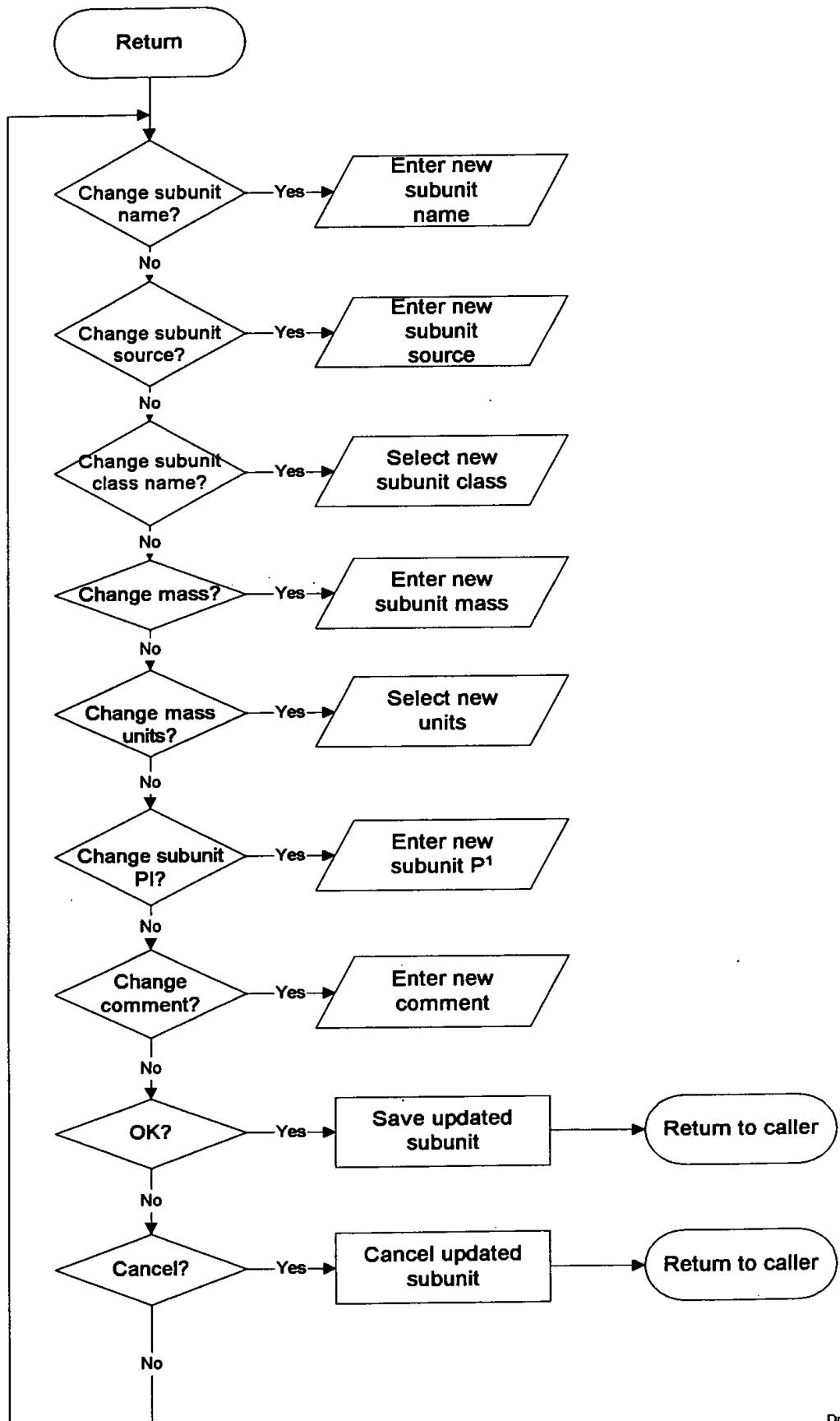


FIGURE 159

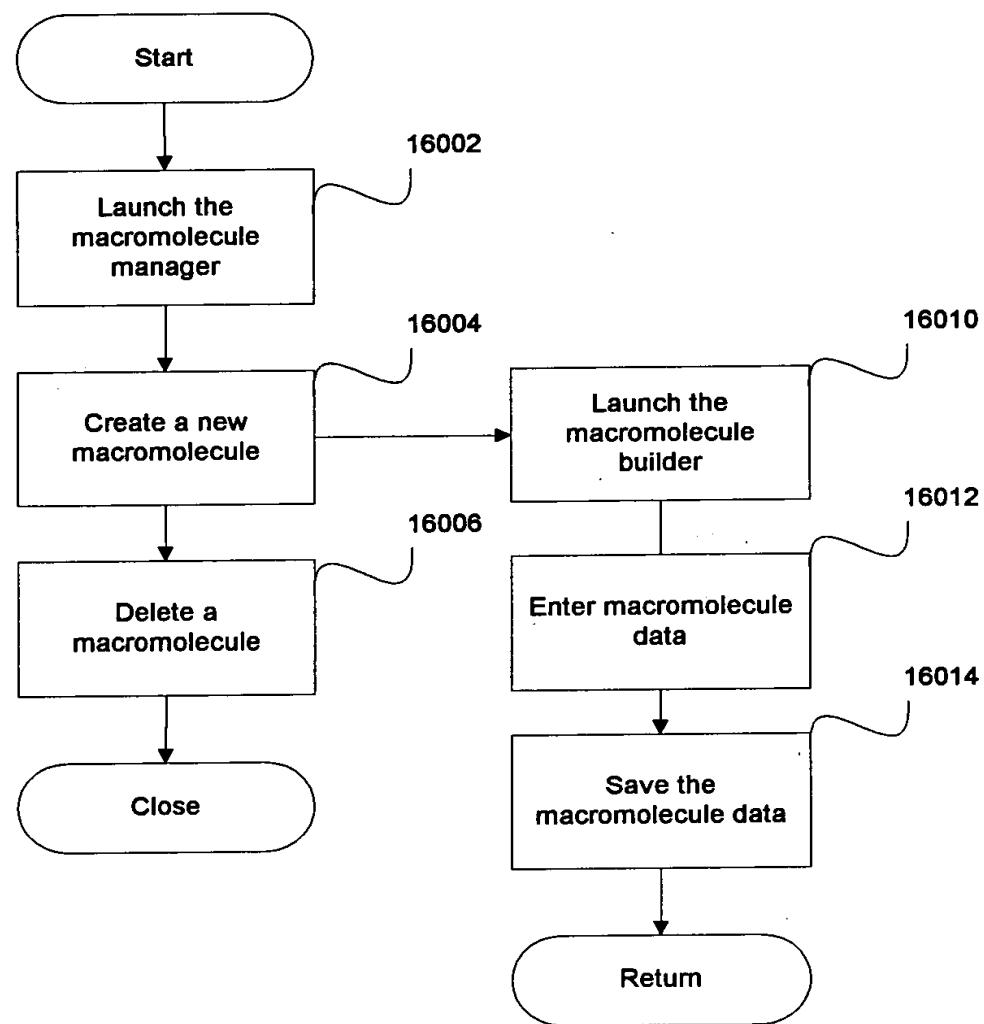


FIGURE 160

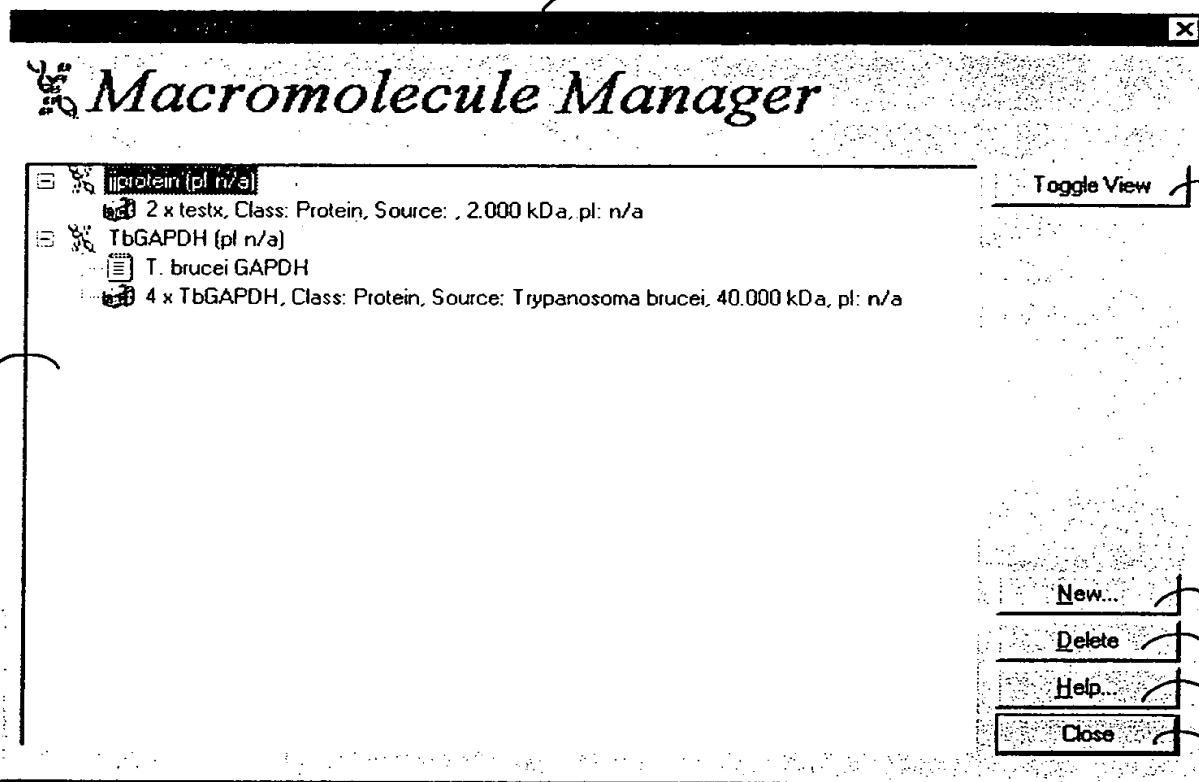


Fig. 161

00621625-000200

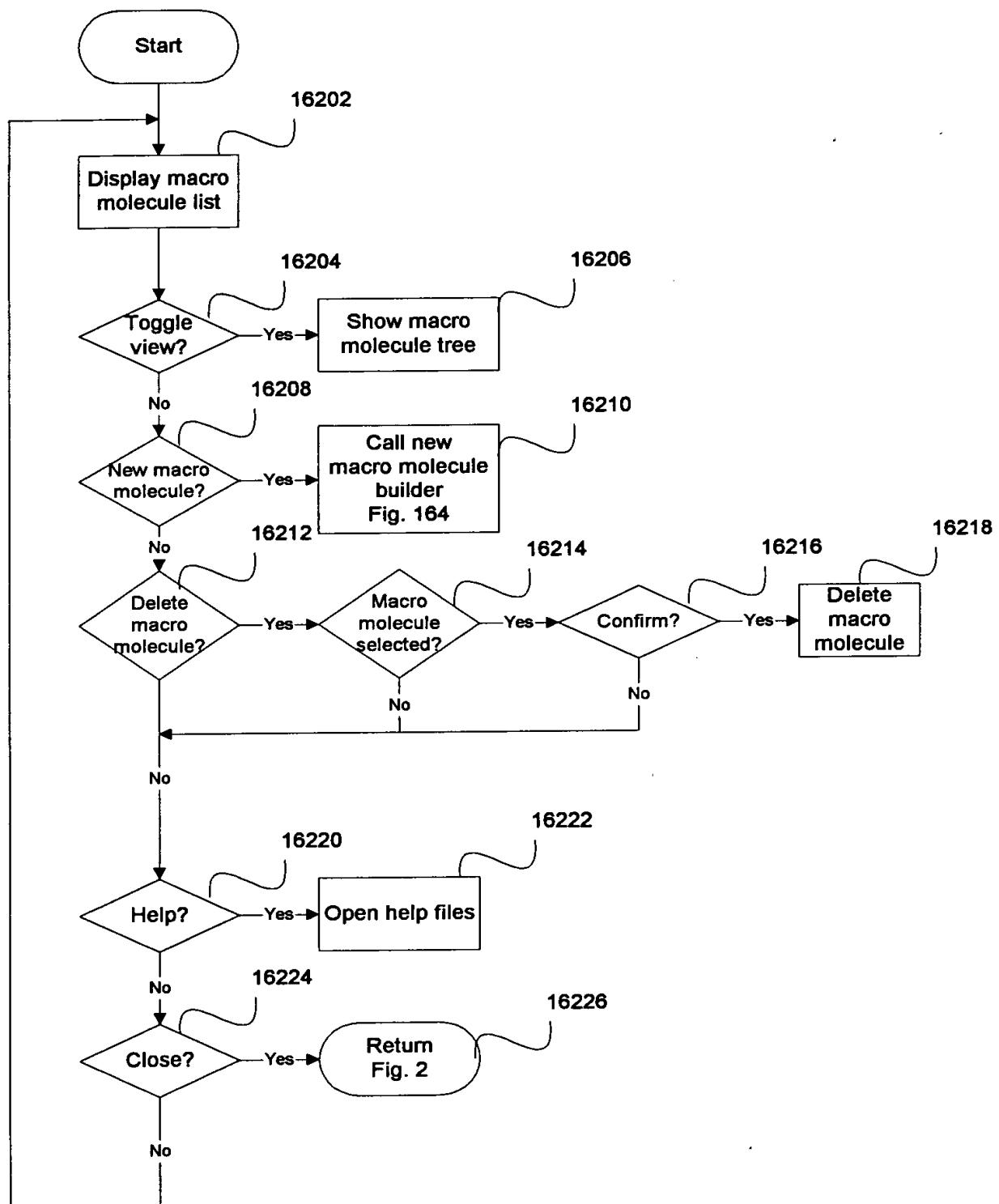


FIGURE 162

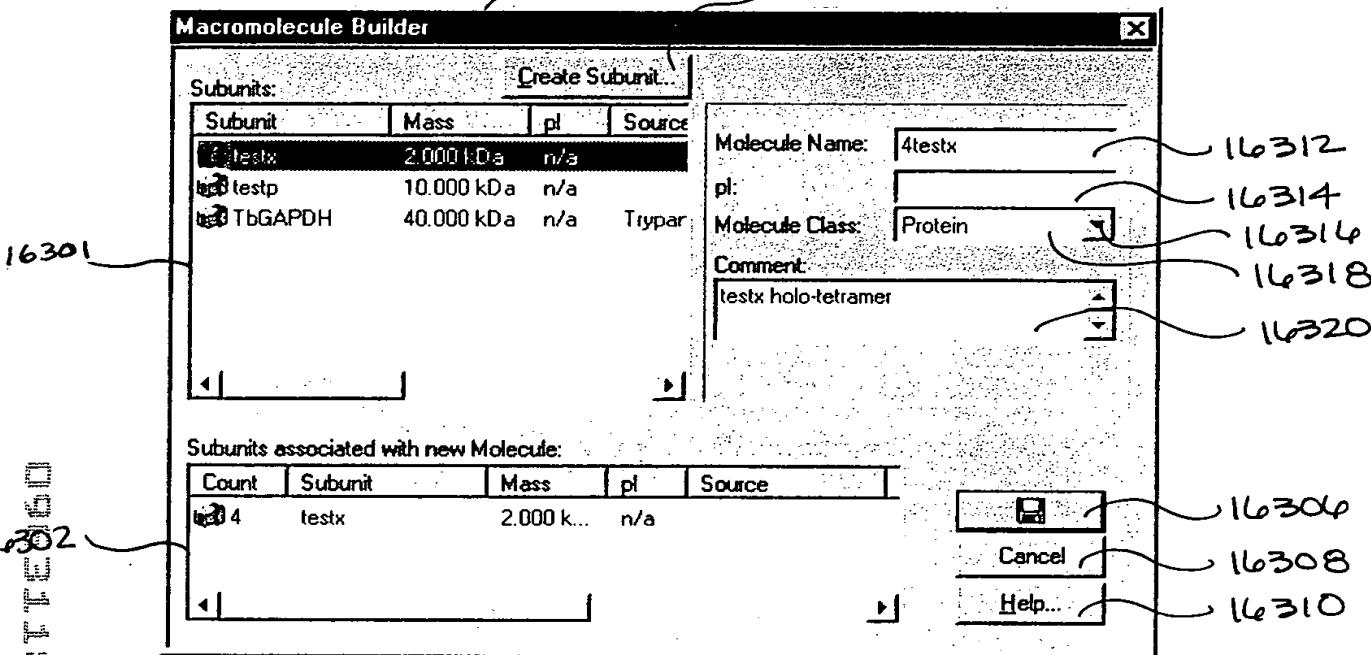


Fig. 163

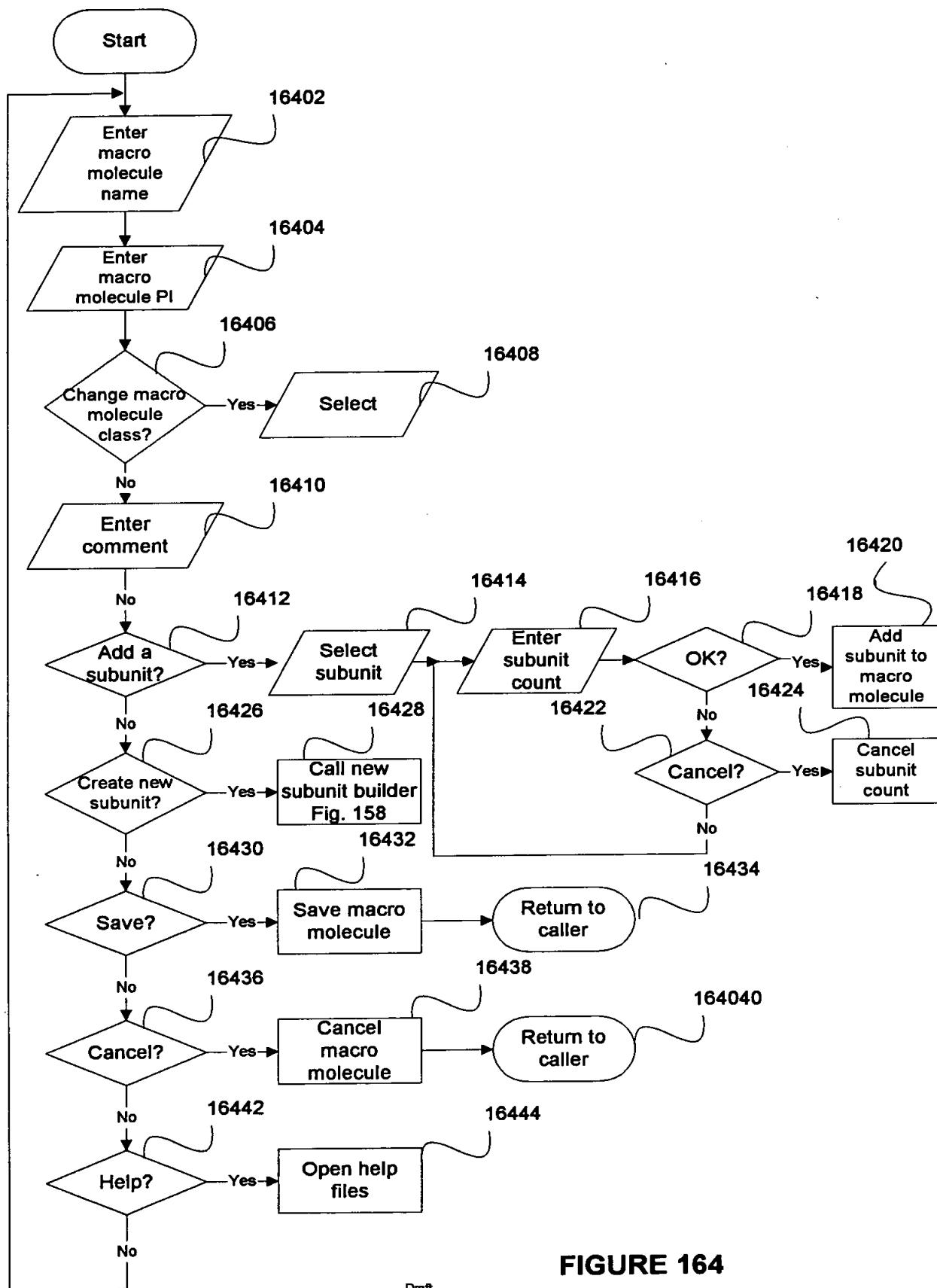
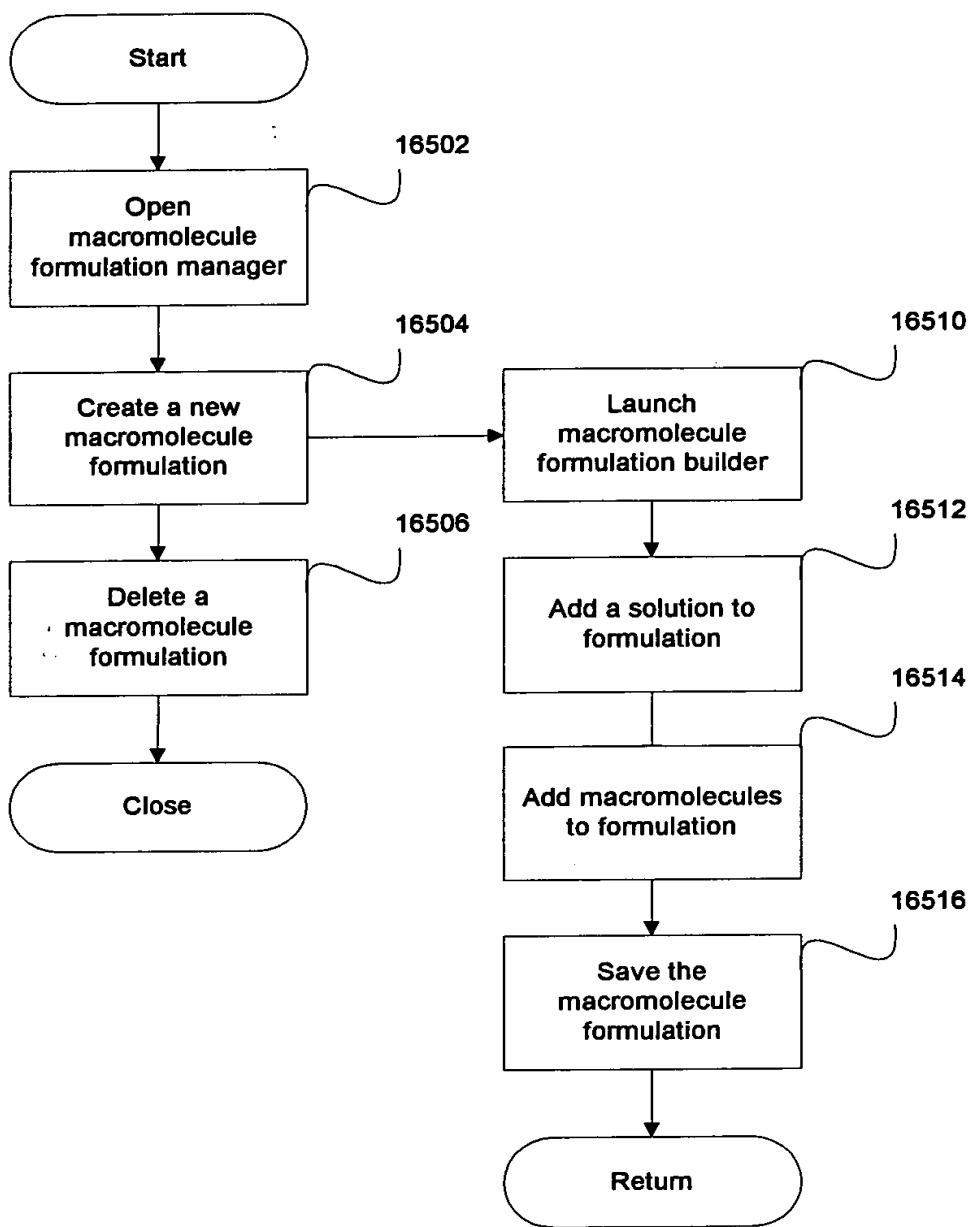


FIGURE 164

09521185-0902-00



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flow16a.vsd
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FIGURE 165

DOC 16601
16602
16603
16604
16605
16606
16607
16608
16609
16610

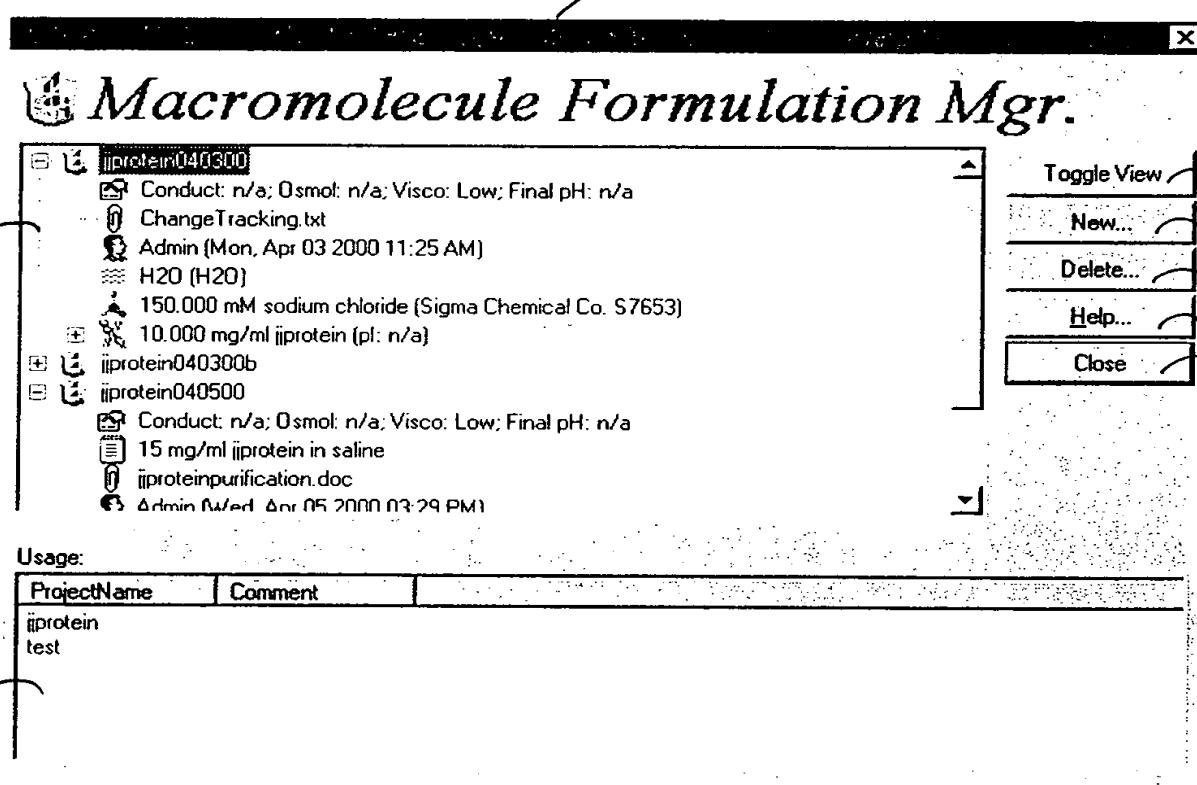


Fig. 166

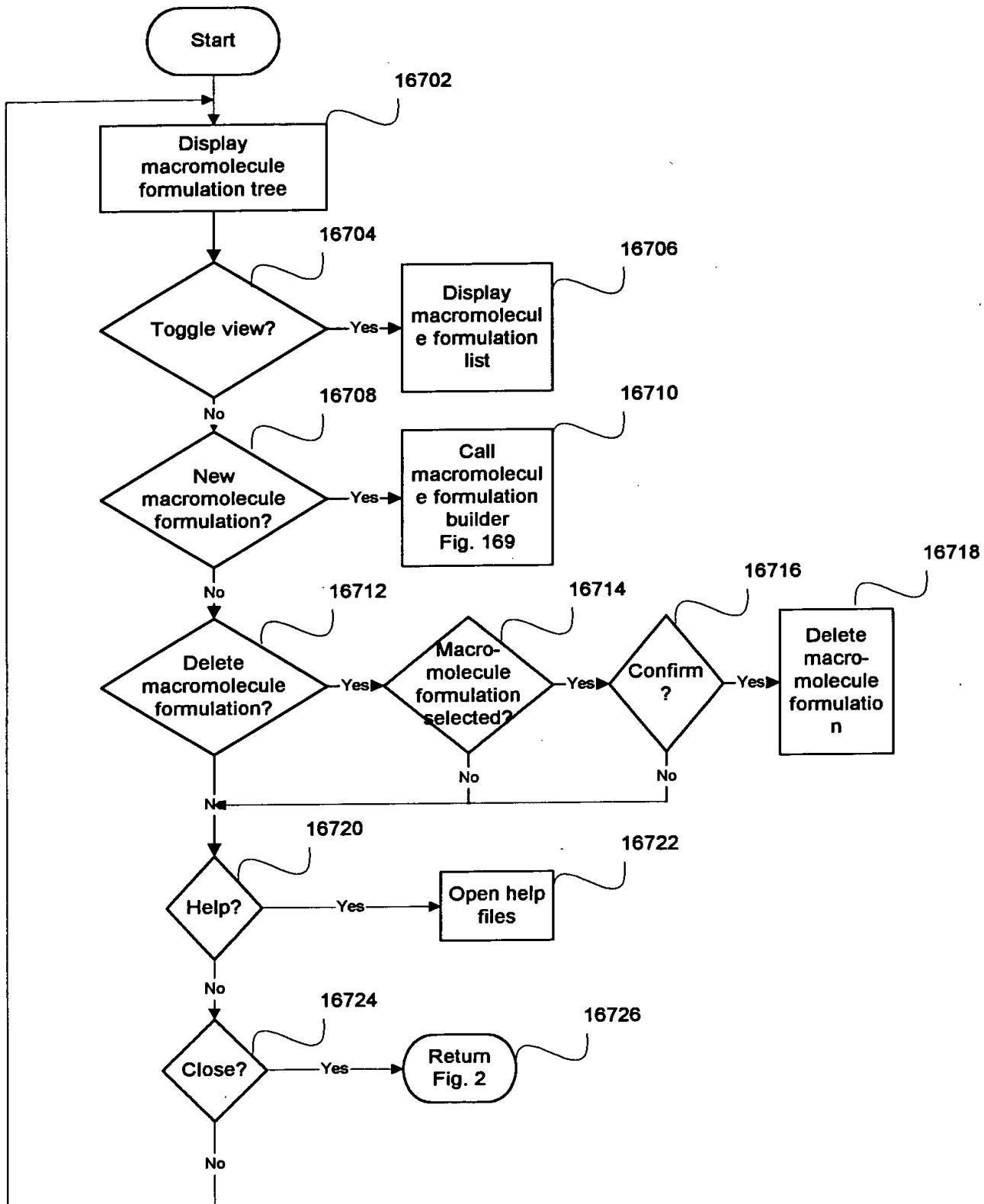


FIGURE 167

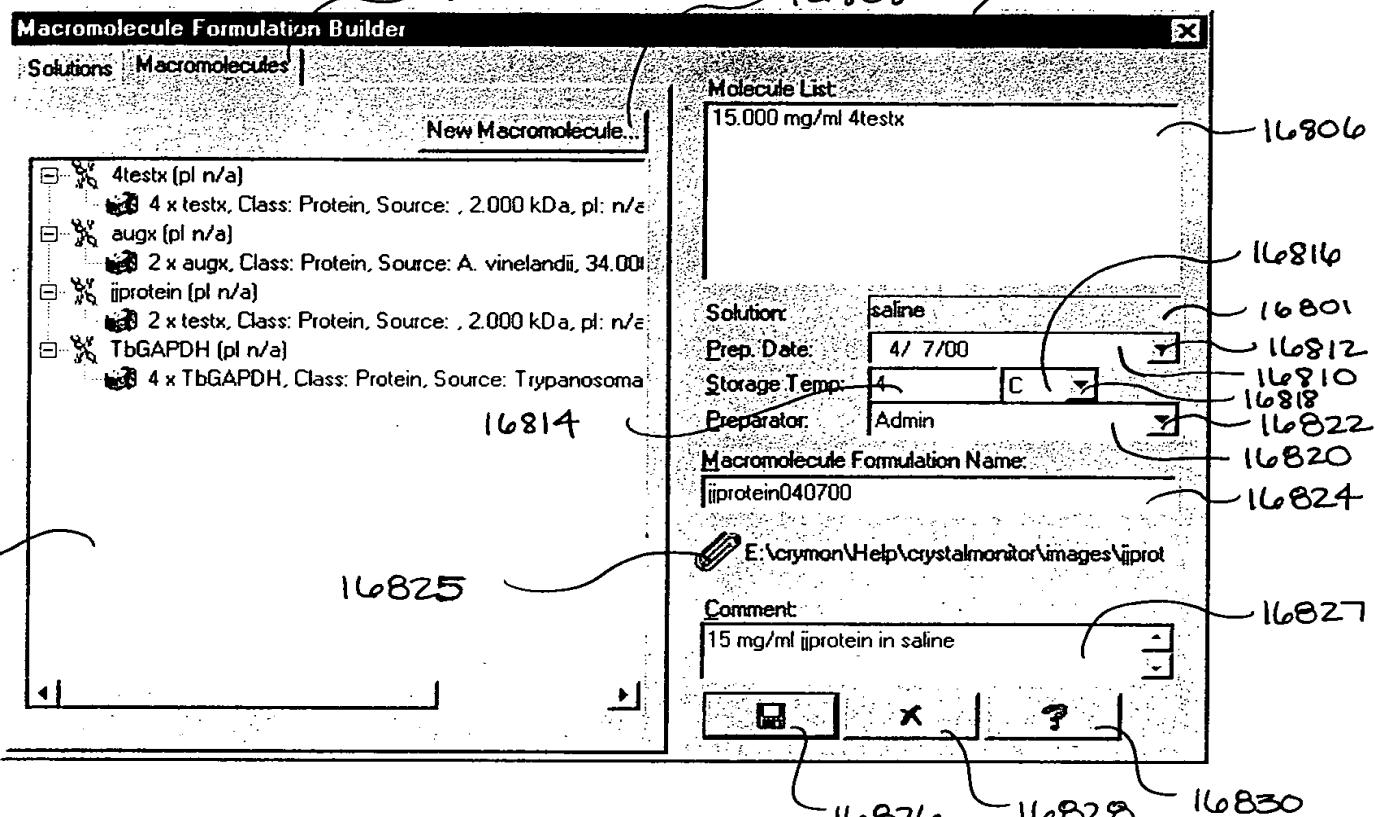


Fig. 148

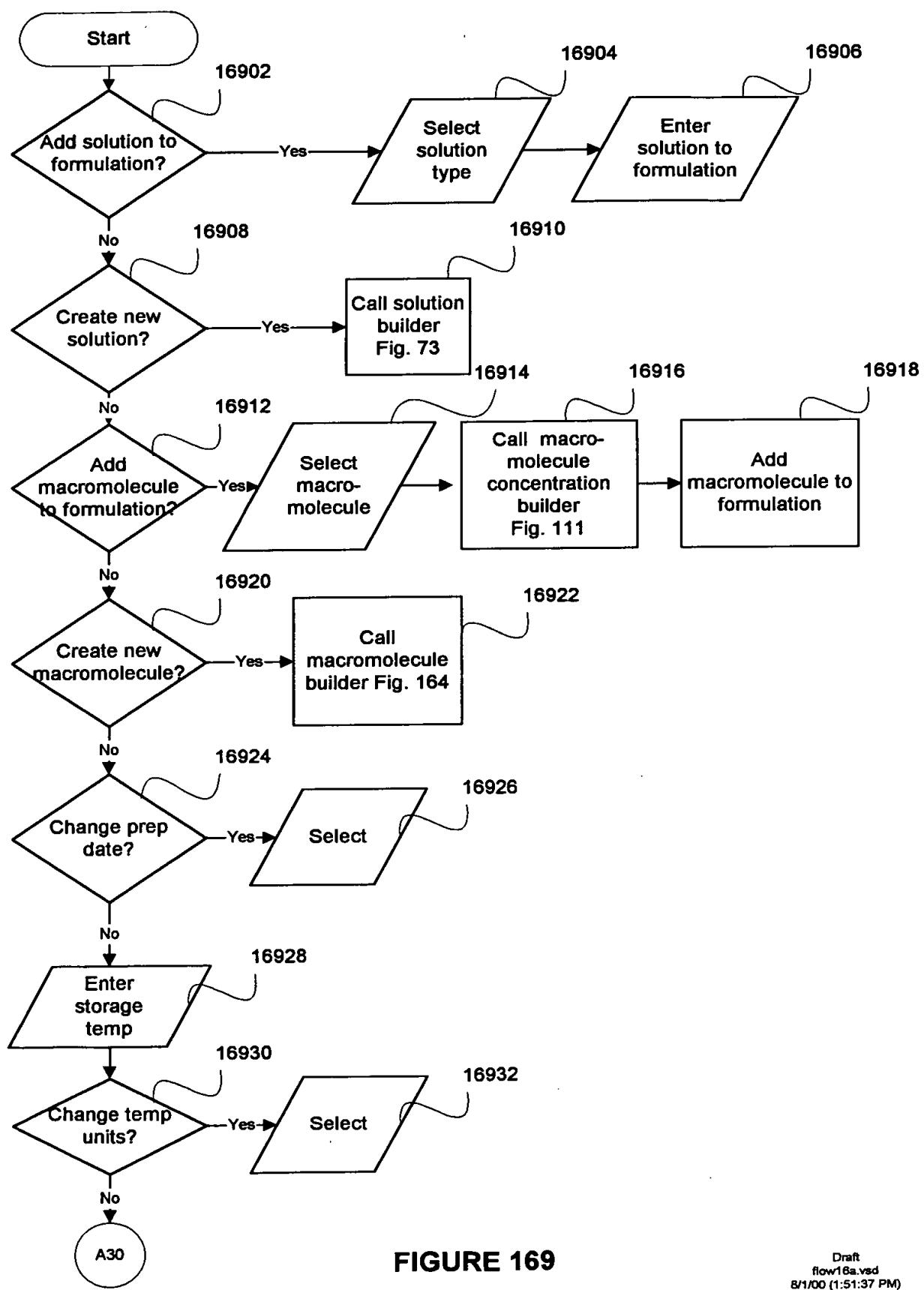
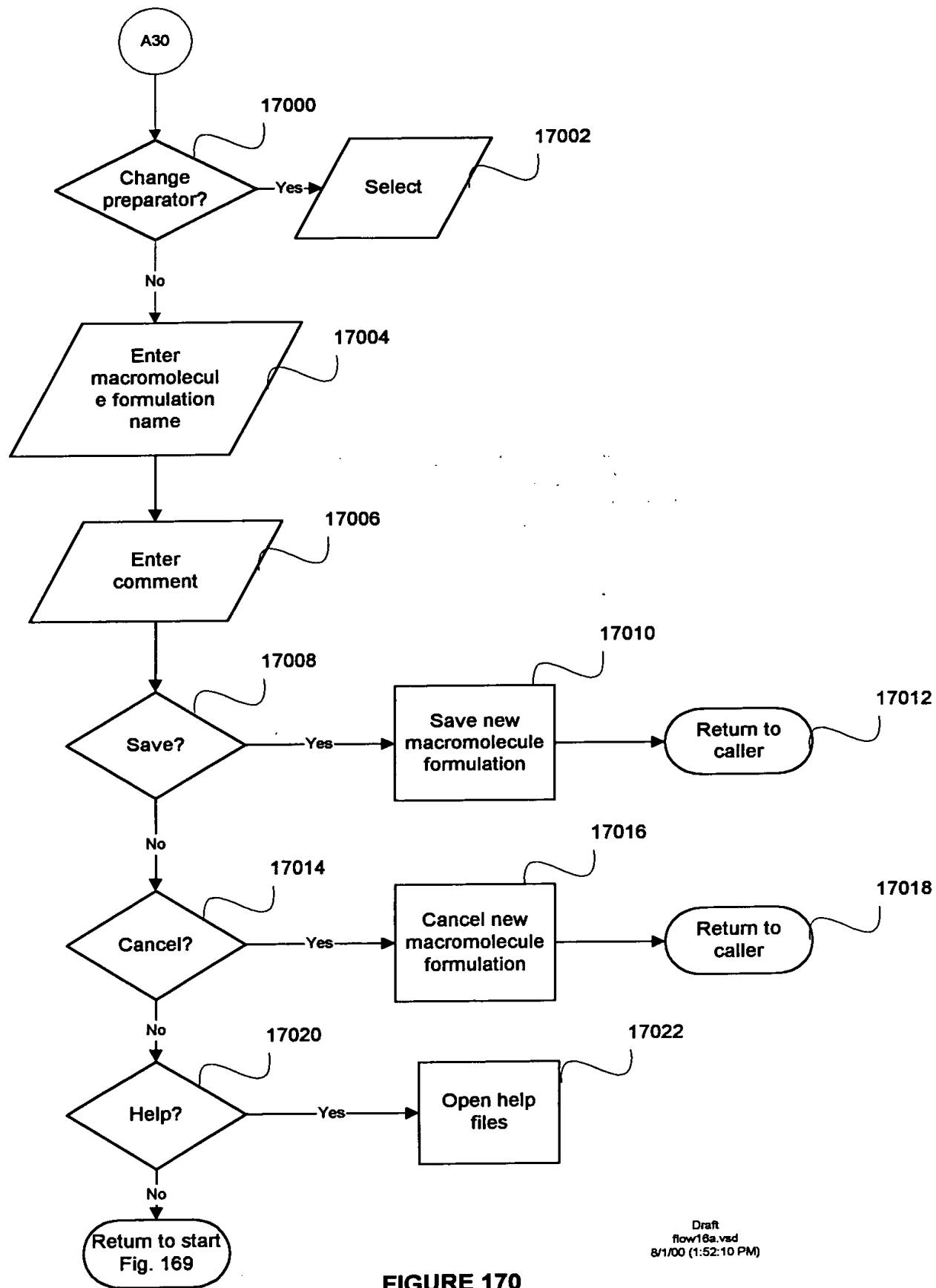


FIGURE 169



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flow16a.vsd
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FIGURE 170

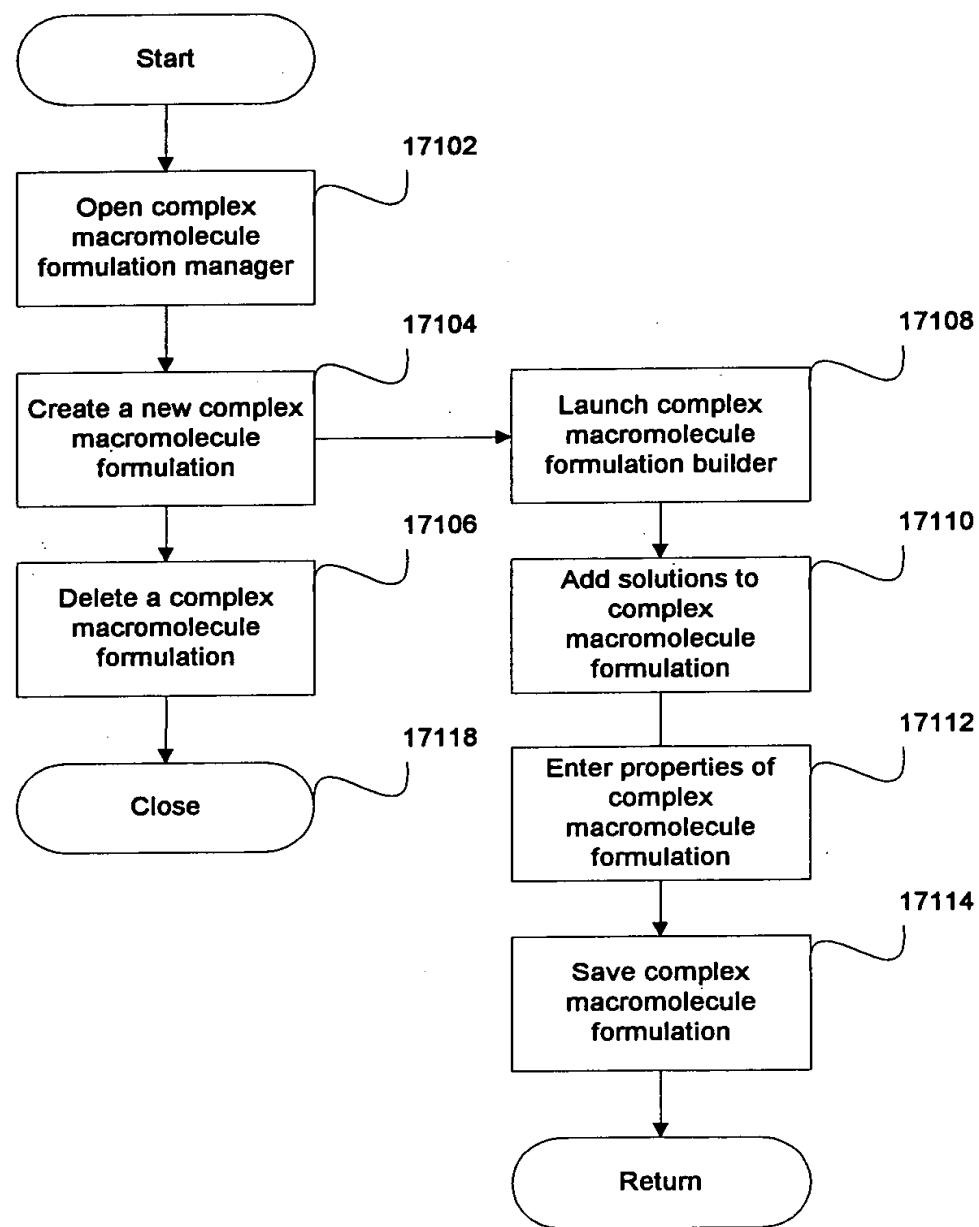
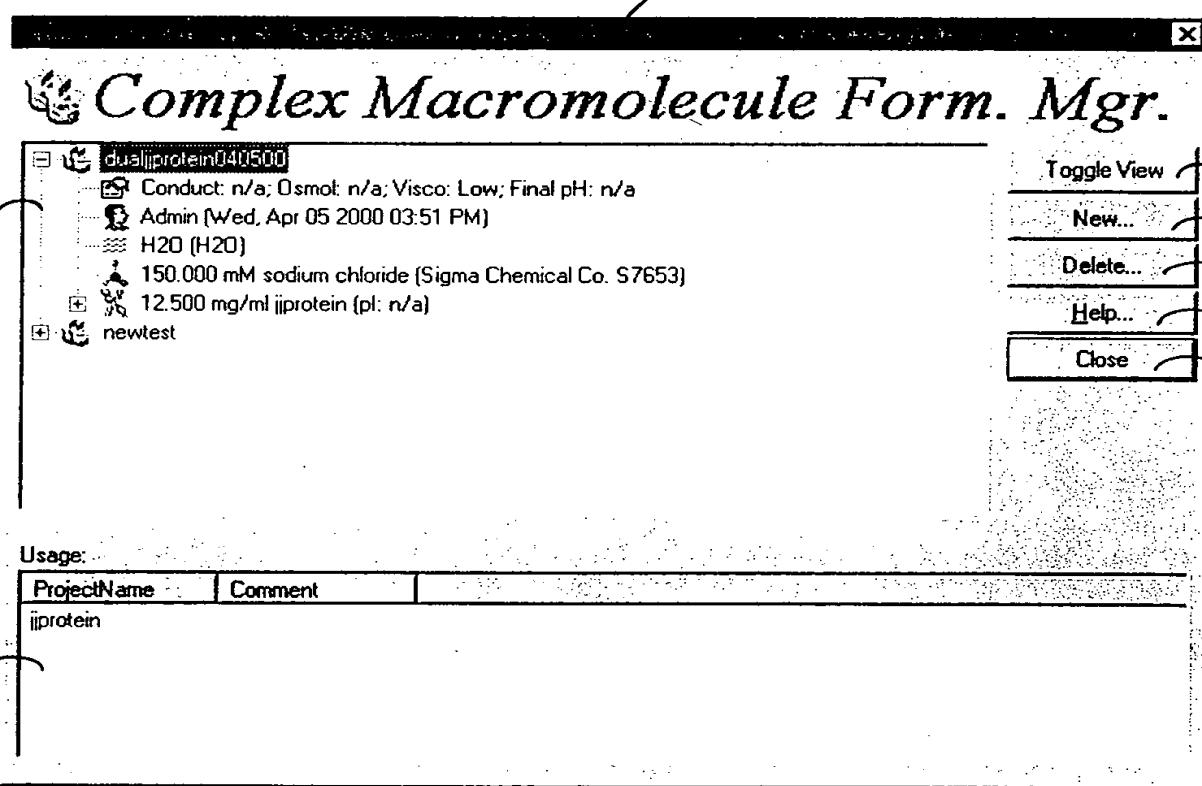


FIGURE 171

00001111
00001111
00001111

17201



17204

17200

17202
17206
17208
17210
17212

FIG. 172

000000000000000000000000

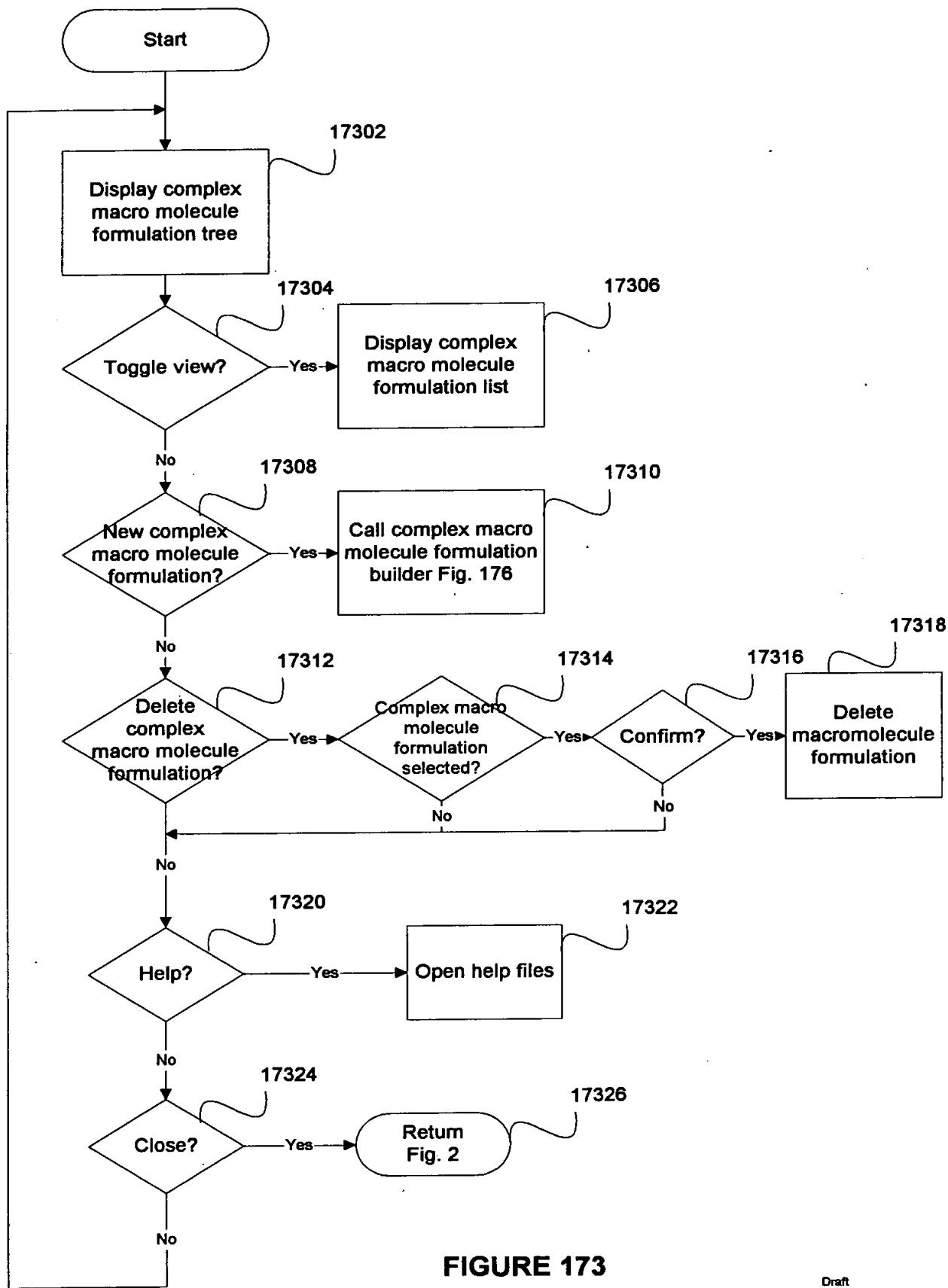


FIGURE 173

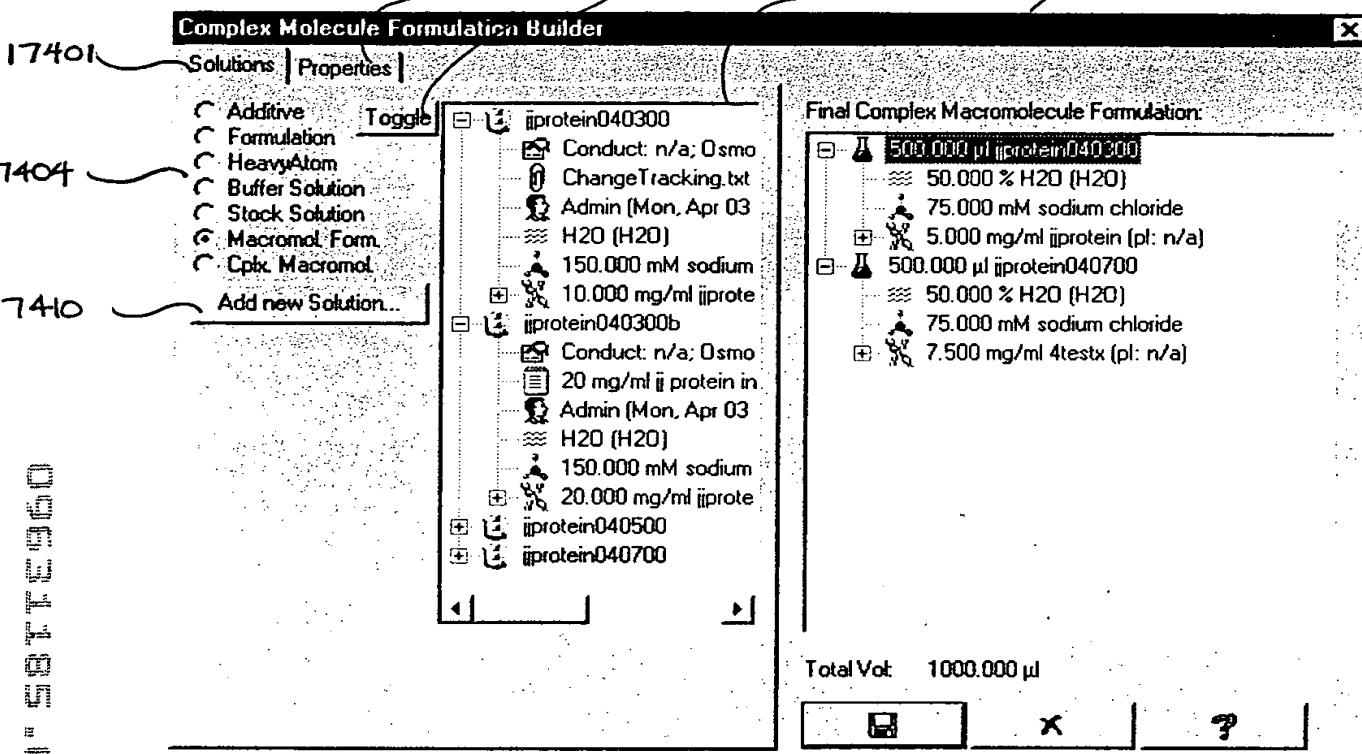


Fig. 174

17500 17530 17528 17508, 17510, 17512

Complex Molecule Formulation Builder

Solutions Properties

17501
17502
17504
17506
17520
17522
17524
17526
17538

Timestamp: 4/7/00
Storage Temp: 4
Preparator: Admin
Final pH:
Conductivity: $\mu\text{S}/\text{cm}$
Vapor Pressure Osmolarity: mmole/kg
Solvent: H₂O [Mothe]
New Solution Name: iproteincomplex37
Viscosity: Low High
Comment: mix iprotein040300 and iprotein040700

17530
17536

Final Complex Macromolecule Formulation:

- 500.000 μl iprotein040300
- 50.000 % H₂O (H₂O)
- 75.000 mM sodium chloride
- 5.000 mg/ml iprotein (pl: n/a)
- 500.000 μl iprotein040700
- 50.000 % H₂O (H₂O)
- 75.000 mM sodium chloride
- 7.500 mg/ml 4testx (pl: n/a)

17514
17516
17518
17534

Total Vol: 1000.000 μl

17540 17542 17544

Fig. 175

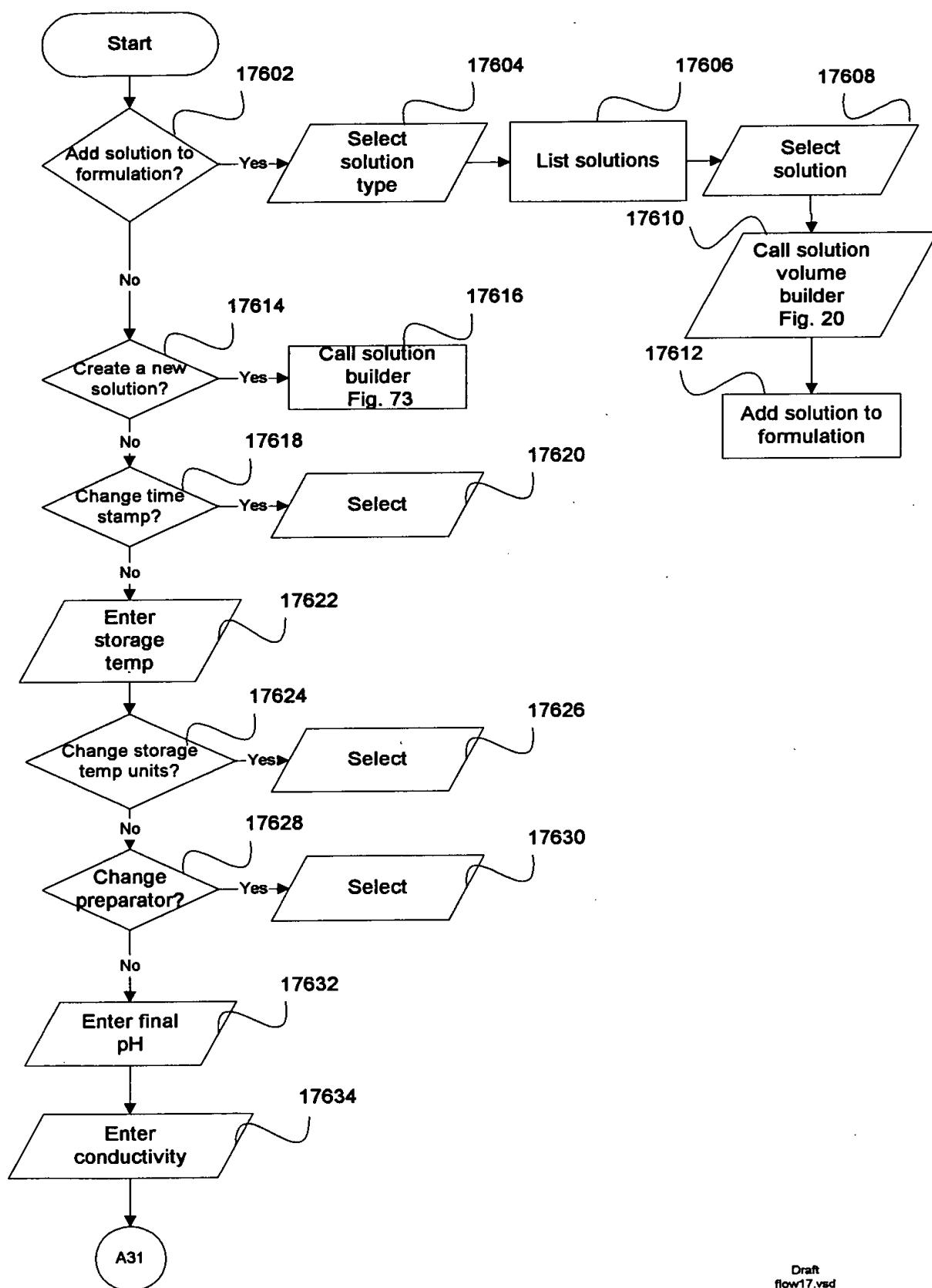


FIGURE 176

CONTINUE - SEPARATE PAGE

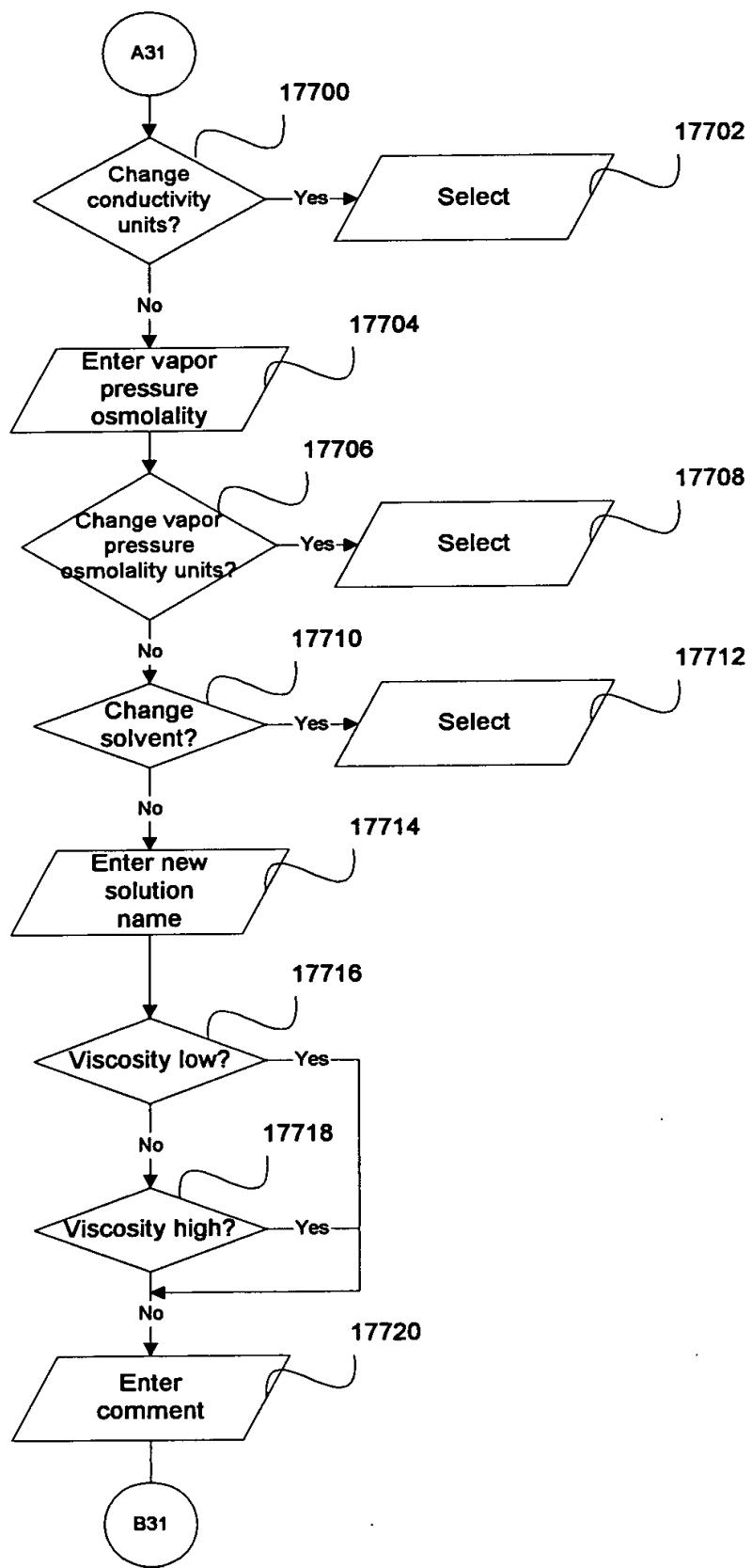


FIGURE 177

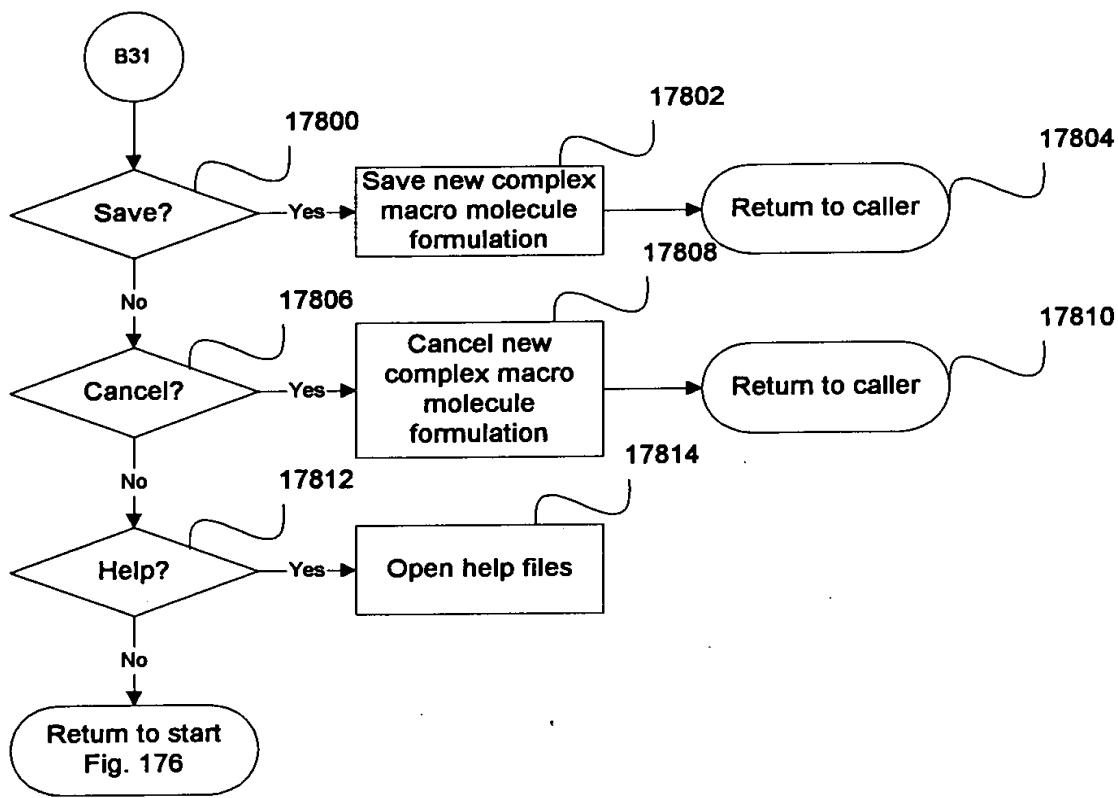


FIGURE 178

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flow17.vsd
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00000000000000000000000000000000

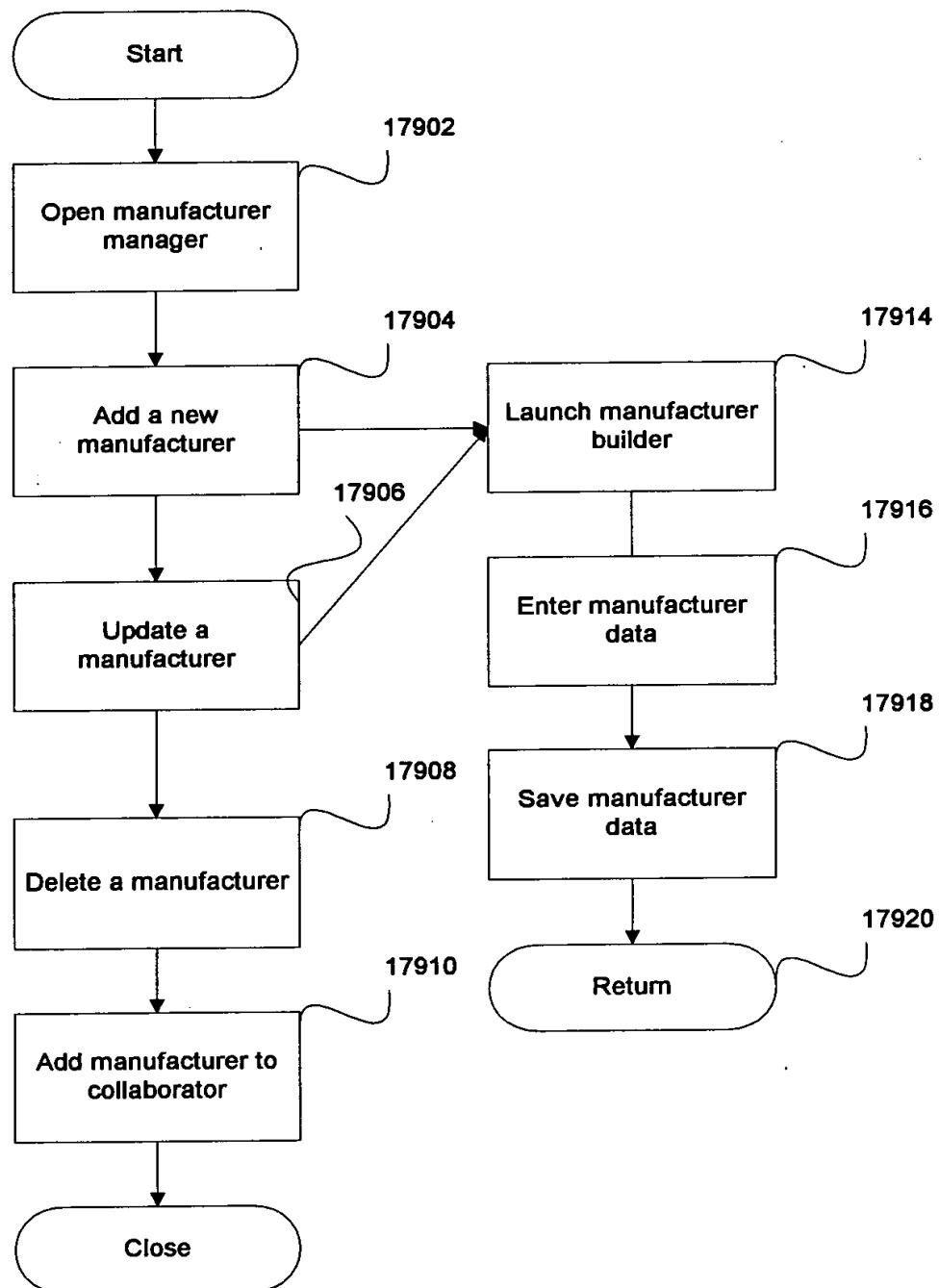


FIGURE 179



18000

18001

Manufacturer Manager

Name	Phone	Street	City
Mother Earth	(800) 123-4567	Atmosphere and...	Milky Way
Emerald BioStructures, Inc.	(888) 780-8535	7865 NE Day R...	Bainbridge Islan...
Sigma Chemical Co.	(800) 325-3010	P.O. Box 14508	St. Louis
Fluka Chemical Corp.	(800) 358-5287	1001 W St. Paul...	Milwaukee
Aldrich Chemical Co.	(800) 558-9160	P.O. Box 2060	Milwaukee
Fisher Scientific Co.	(800) 766-7000	585 Alpha Dr.	Pittsburgh
VWR Scientific Products Co...	(800) 932-5000	1310 Goshen P...	West Chester
J. T. Baker	(800) 582-2537	222 Red School...	Phillipsburg
Promega Corp.	(800) 356-9526	2800 Woods Ho...	Madison
Pierce Chemical Co.	(800) 874-3723	3747 N Meridian...	Rockford
Mallinckrodt	(800) 354-2050	222 Red School...	Phillipsburg
ICN Pharmaceuticals, Inc.	(800) 854-0530	3300 Hyland Ave.	Costa Mesa
Bio-Rad Laboratories	(800) 424-6723	2000 Alfred Nob...	Hercules
Amersham Pharmacia Biote...	(800) 526-3593	800 Centennial ...	Piscataway
Invitrogen Corp.	(800) 955-6288	1600 Faraday A...	Carlsbad
Calbiochem-Novabiochem C...	(800) 854-3417	P.O. Box 12087	La Jolla
Hampton Research Corp.	(800) 452-3899	27632 El Lazo Rd.	Laguna Niguel

New... 18002
Update... 18004
Delete... 18006
Add to Collab... 18008
Help... 18010
Close 18012

FIG. 180

002008-5874260

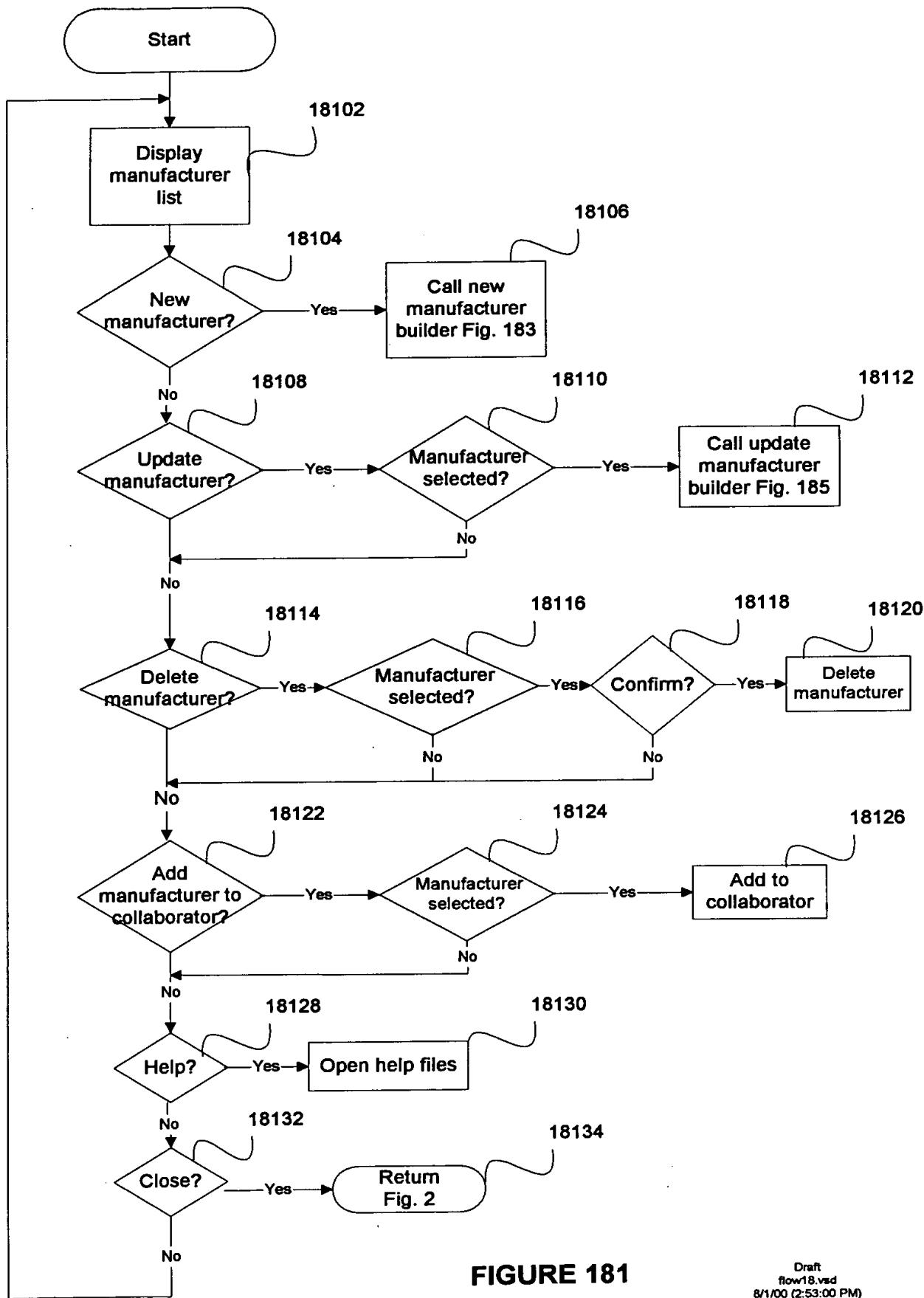


FIGURE 181

Draft
flow18.vsd
8/1/00 (2:53:00 PM)

Update Emerald BioStructures, Inc.

Name:	Emerald BioStructures, Inc.	18200
Phone:	(888) 780-8535	18202
Street:	7865 NE Day Rd. W	18204
City:	Bainbridge Island	18206
State:	WA	18208
Zip:	98110	18210
Country:	USA	18212
Email:	info@emeraldbiostructures.com	18214
HTTP:	http://www.emeraldbiostructures.com	18216
Fax:	(206) 780-8549	18218
Dept:		18220
		18222
<input type="button" value="OK"/> <input type="button" value="Cancel"/>		

Fig. 182

092210898000

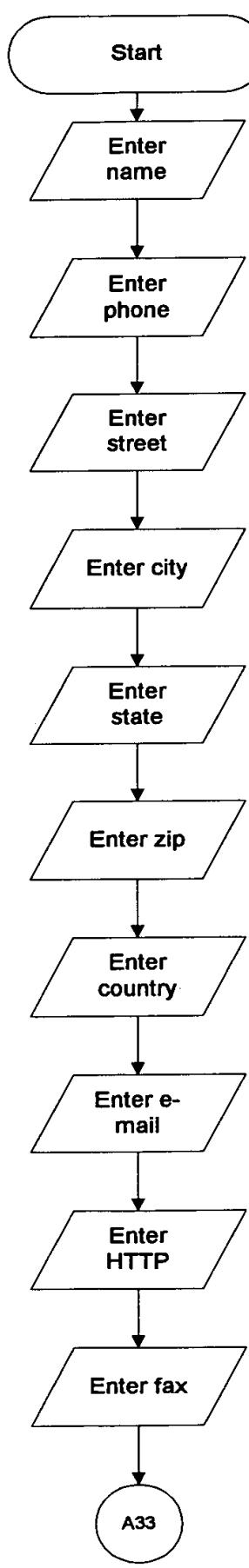


FIGURE 183

Draft
flow18.vsd
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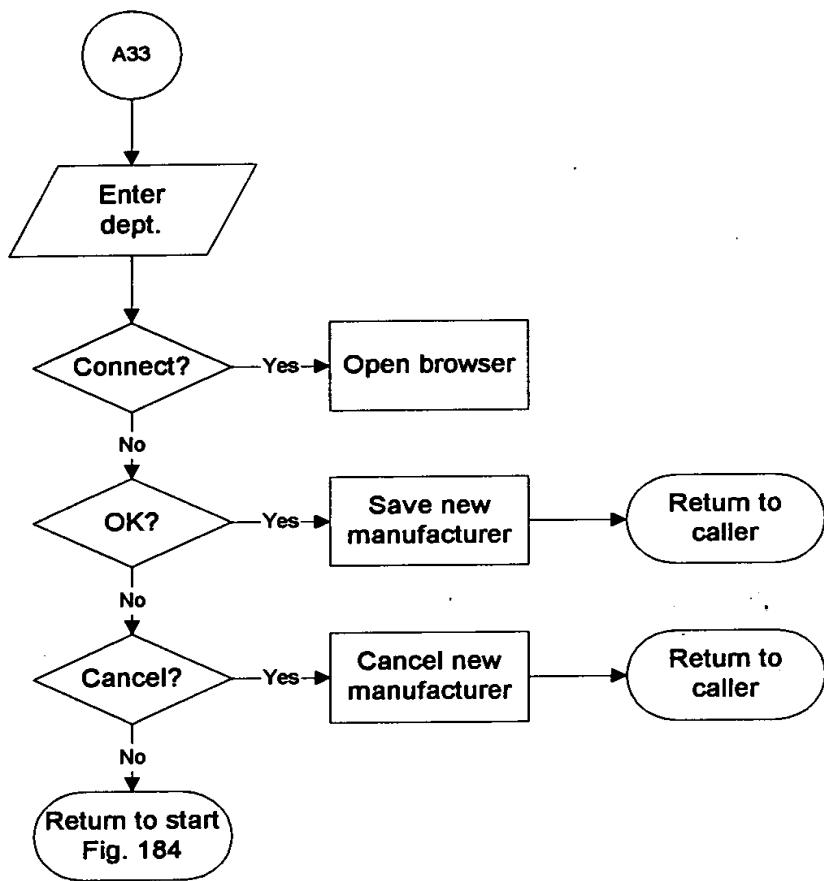


FIGURE 184

00020080=58TT\$960

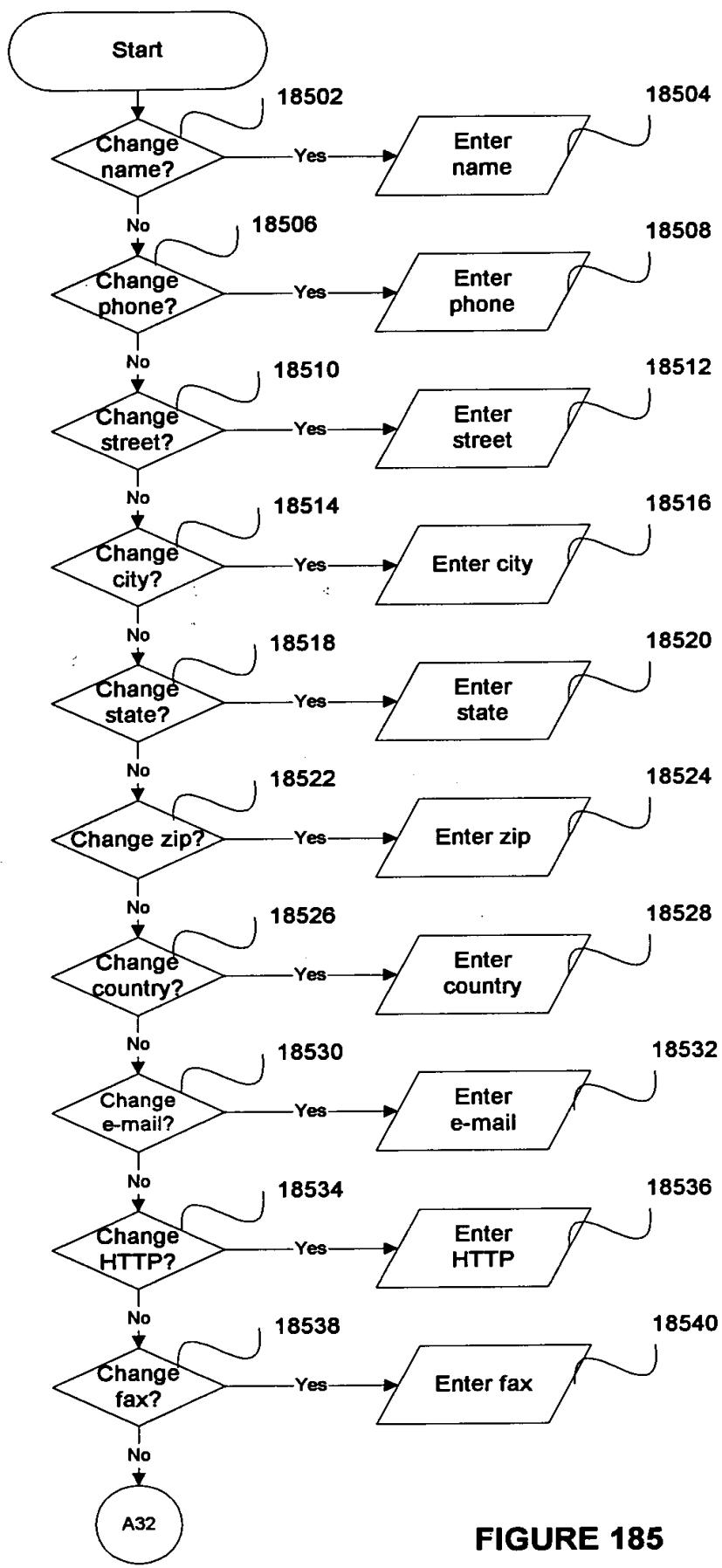


FIGURE 185

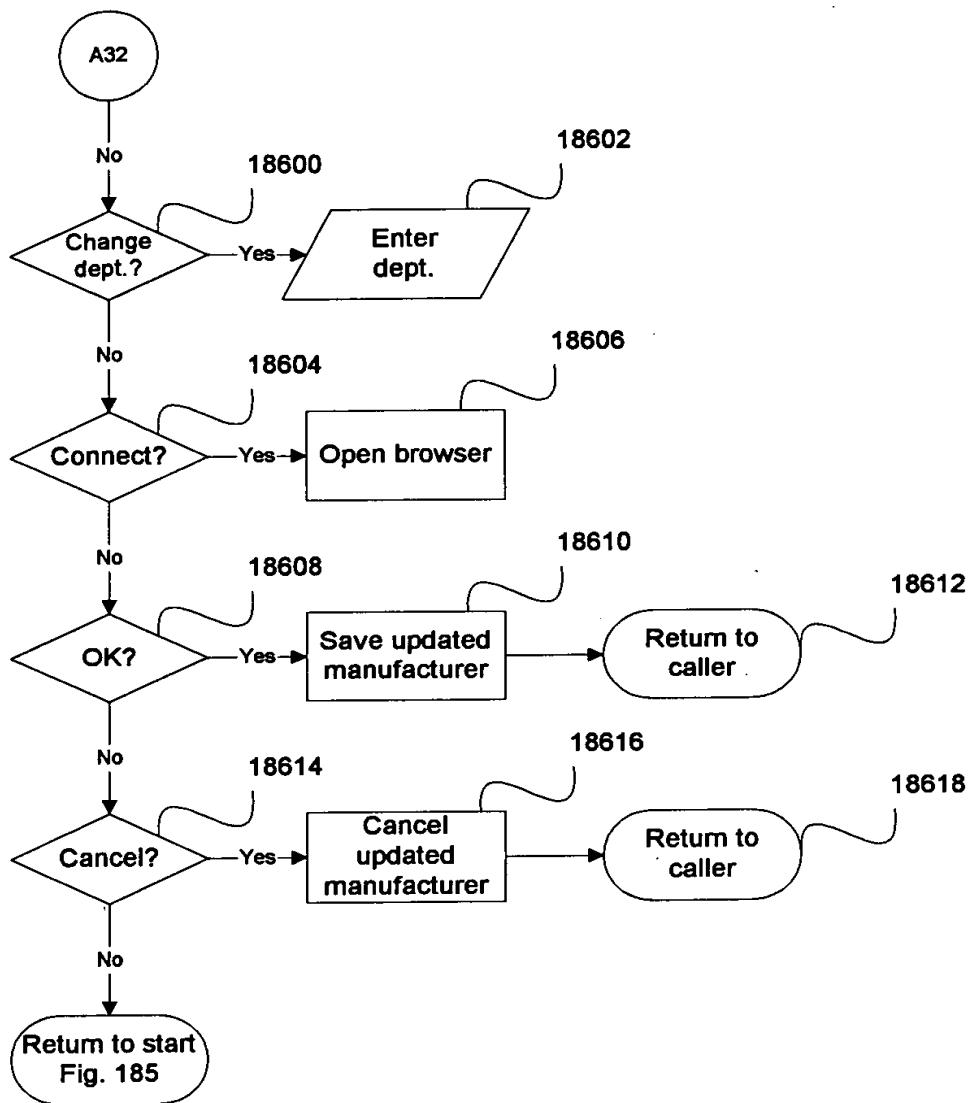
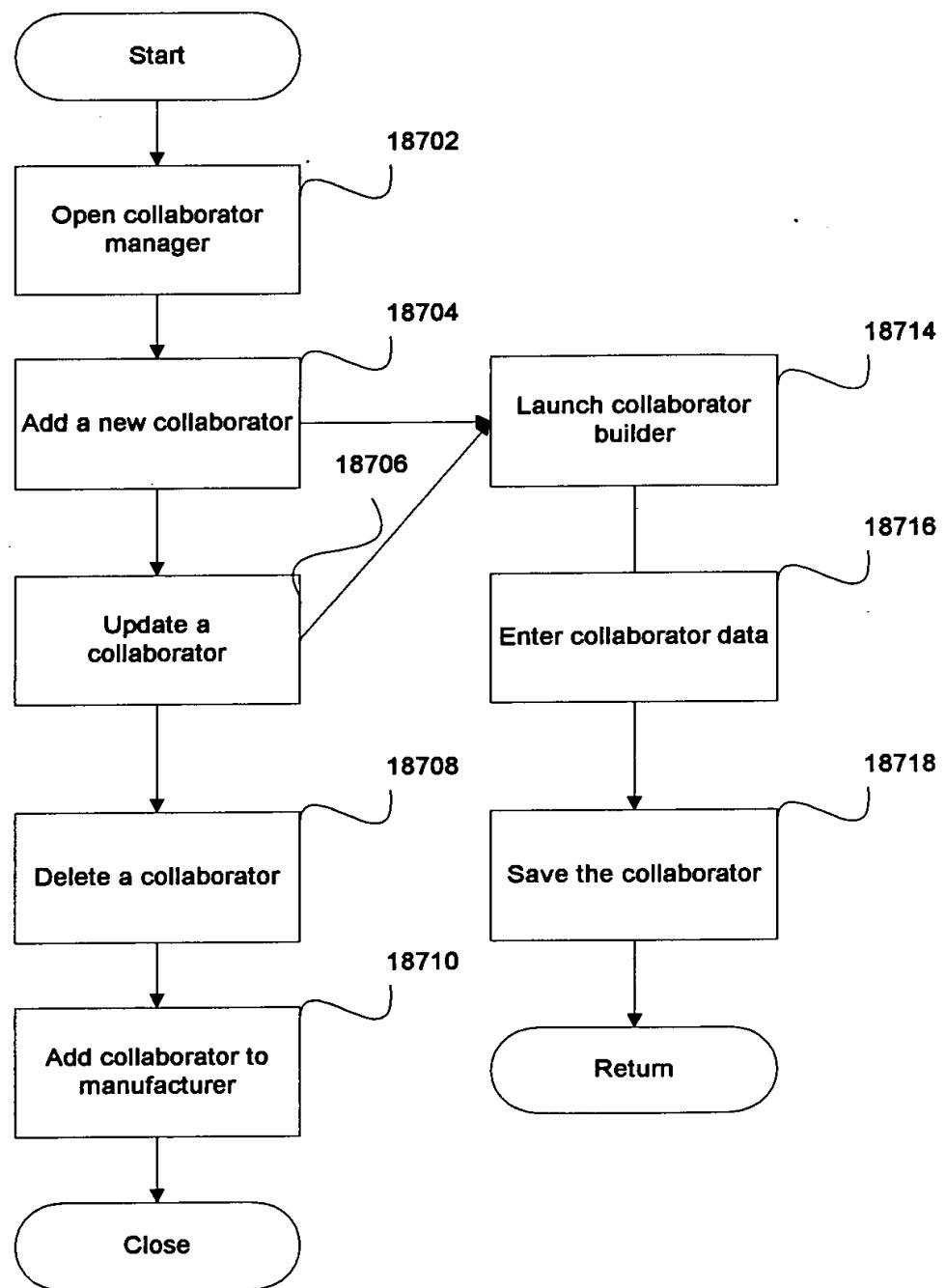


FIGURE 186

Draft
flow18.vsd
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000000000000000000000000



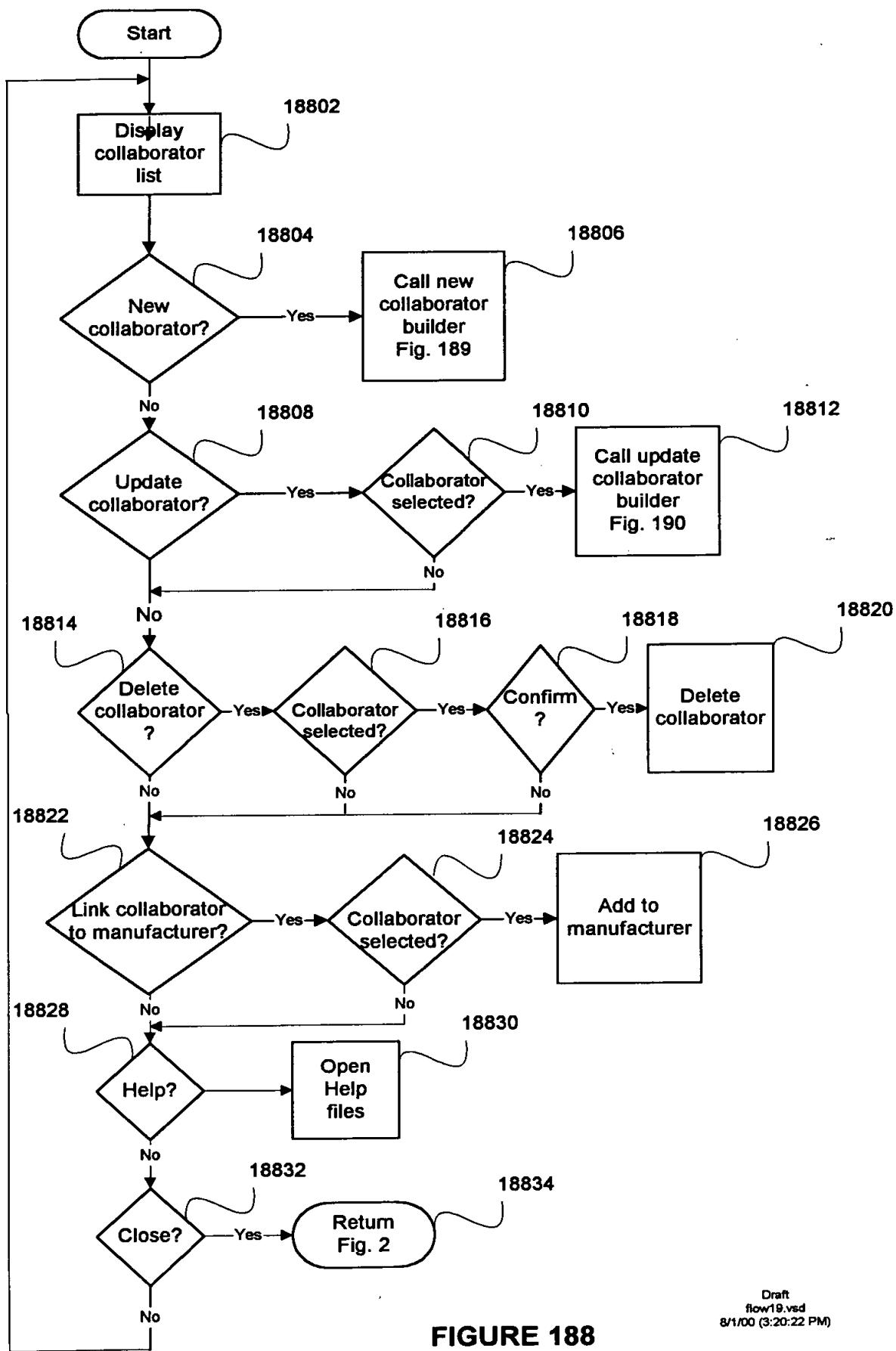


FIGURE 188

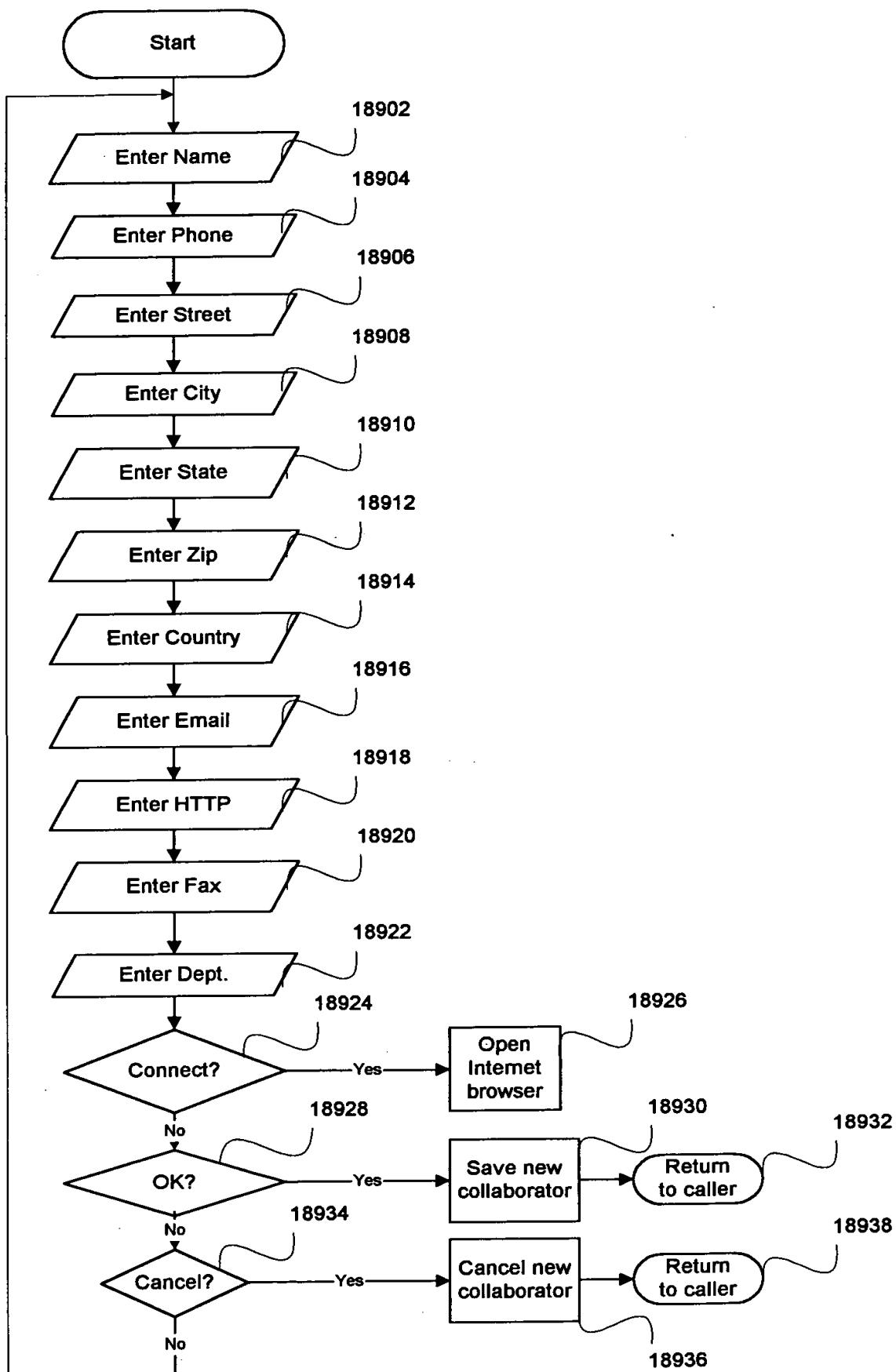


FIGURE 189

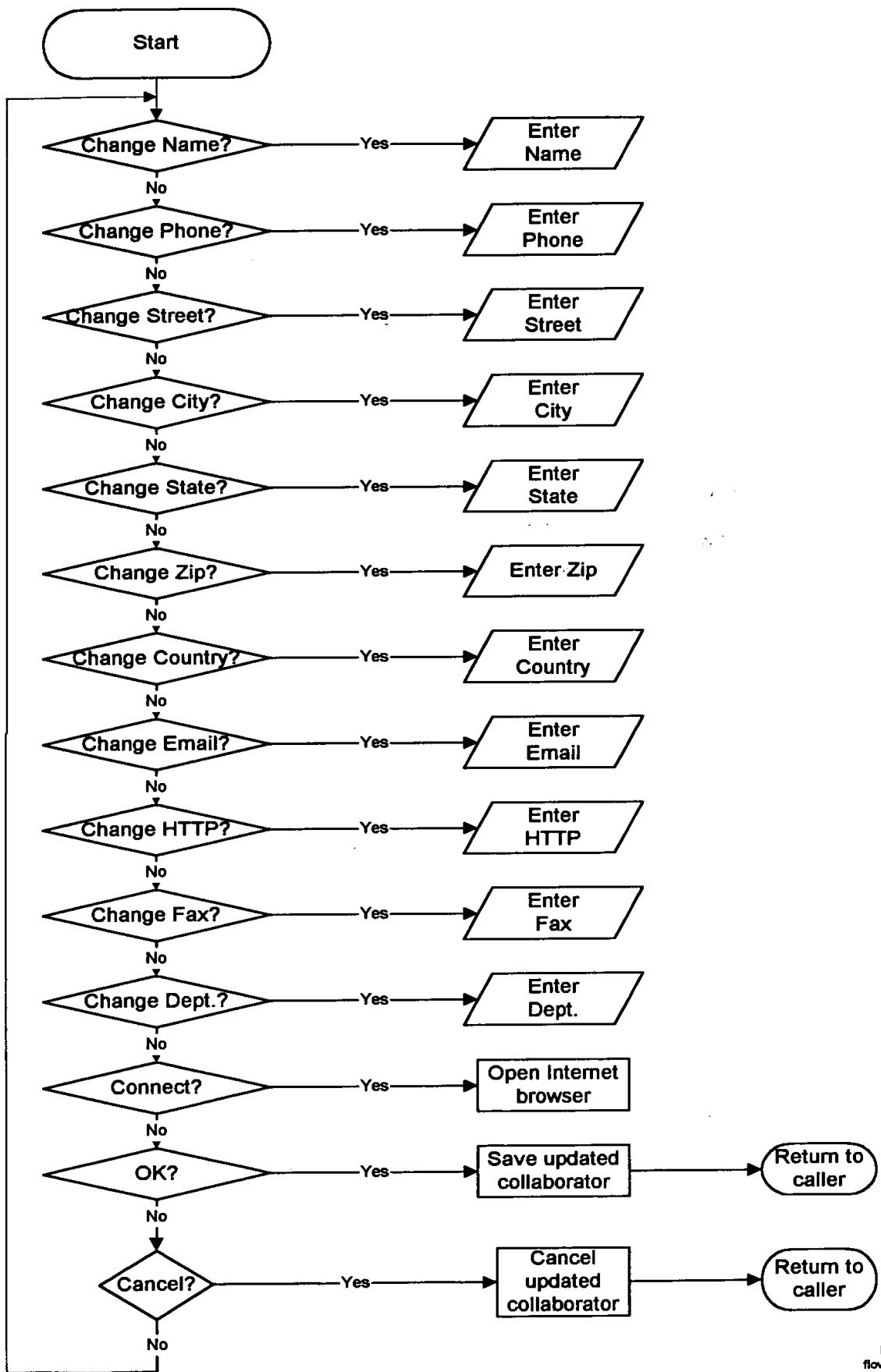
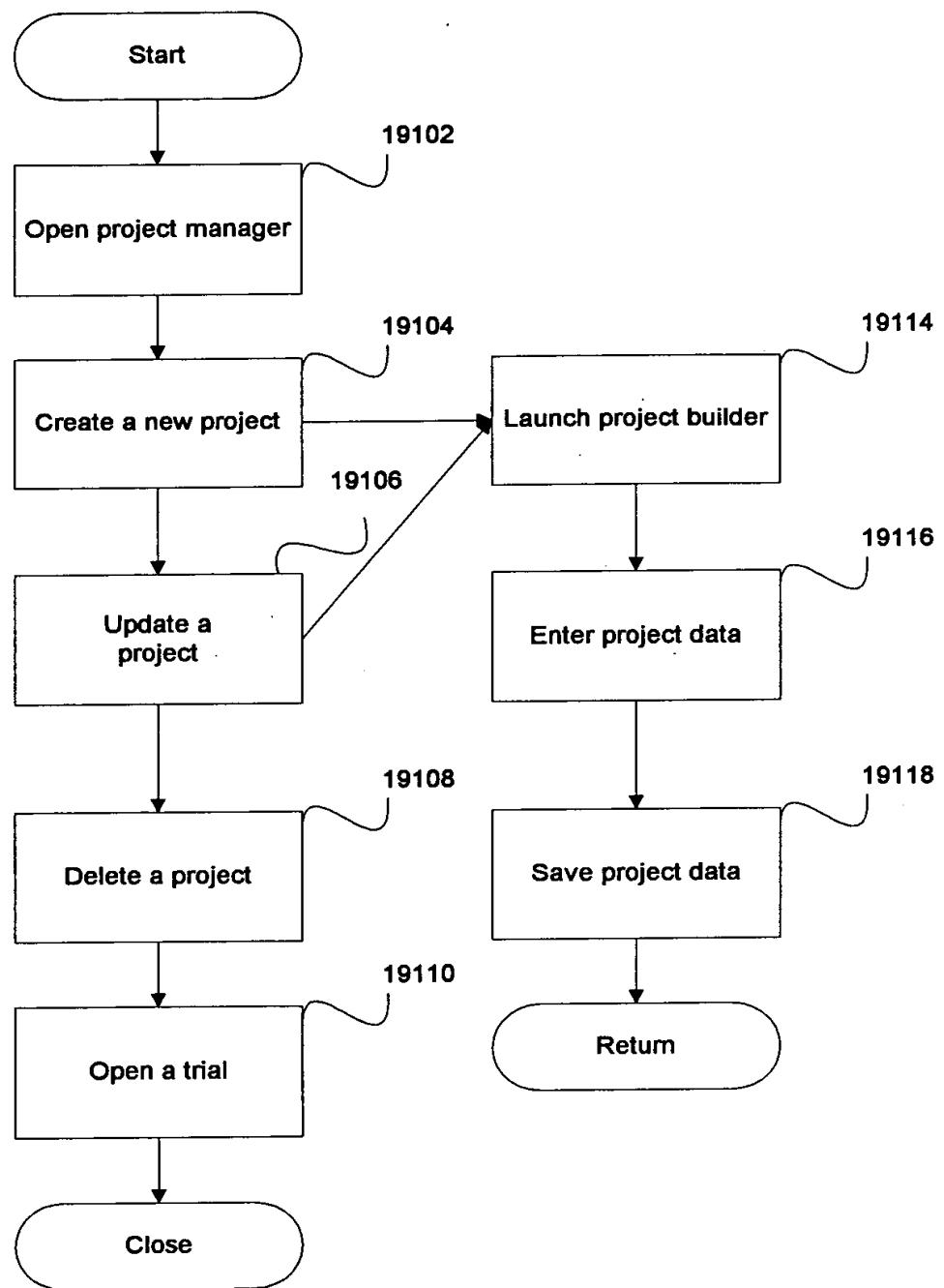


FIGURE 190



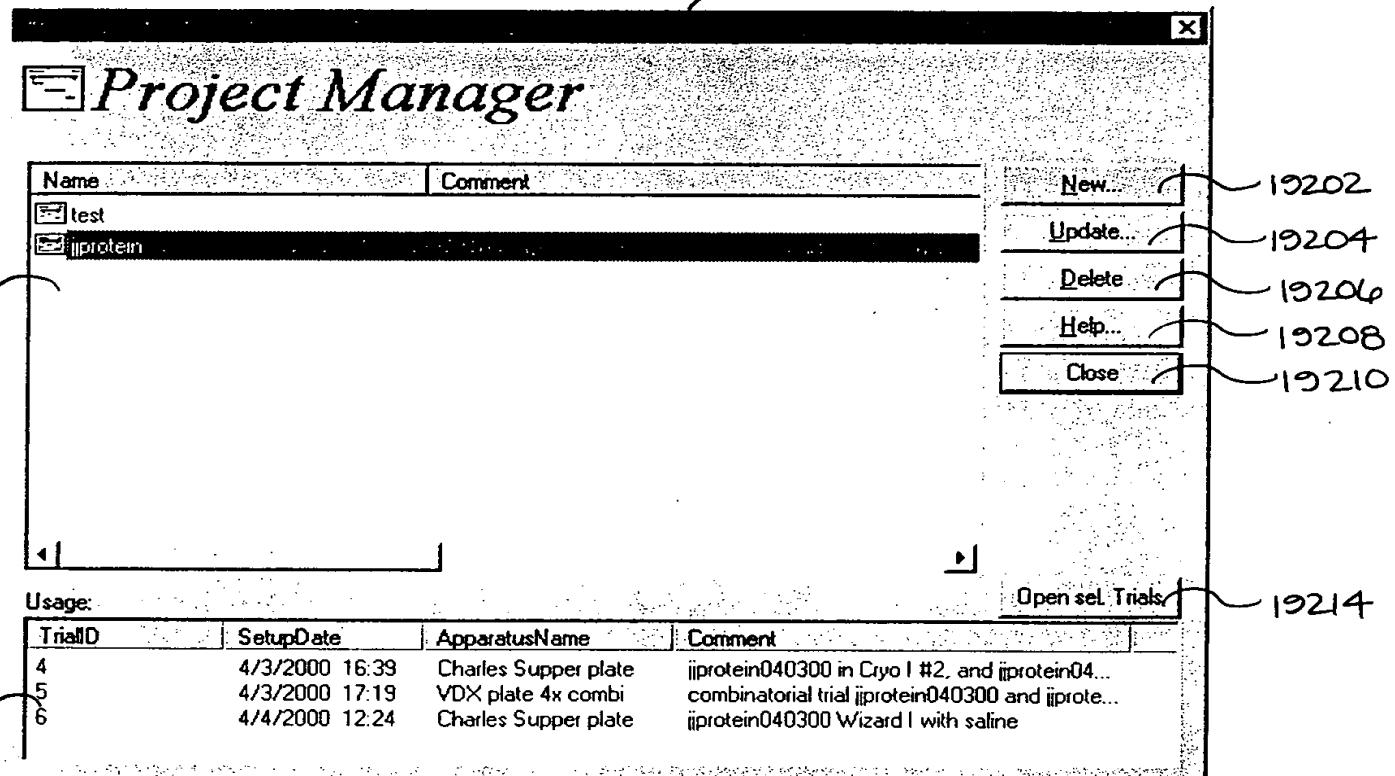


Fig. 192

OCTOBER - OCTOBER

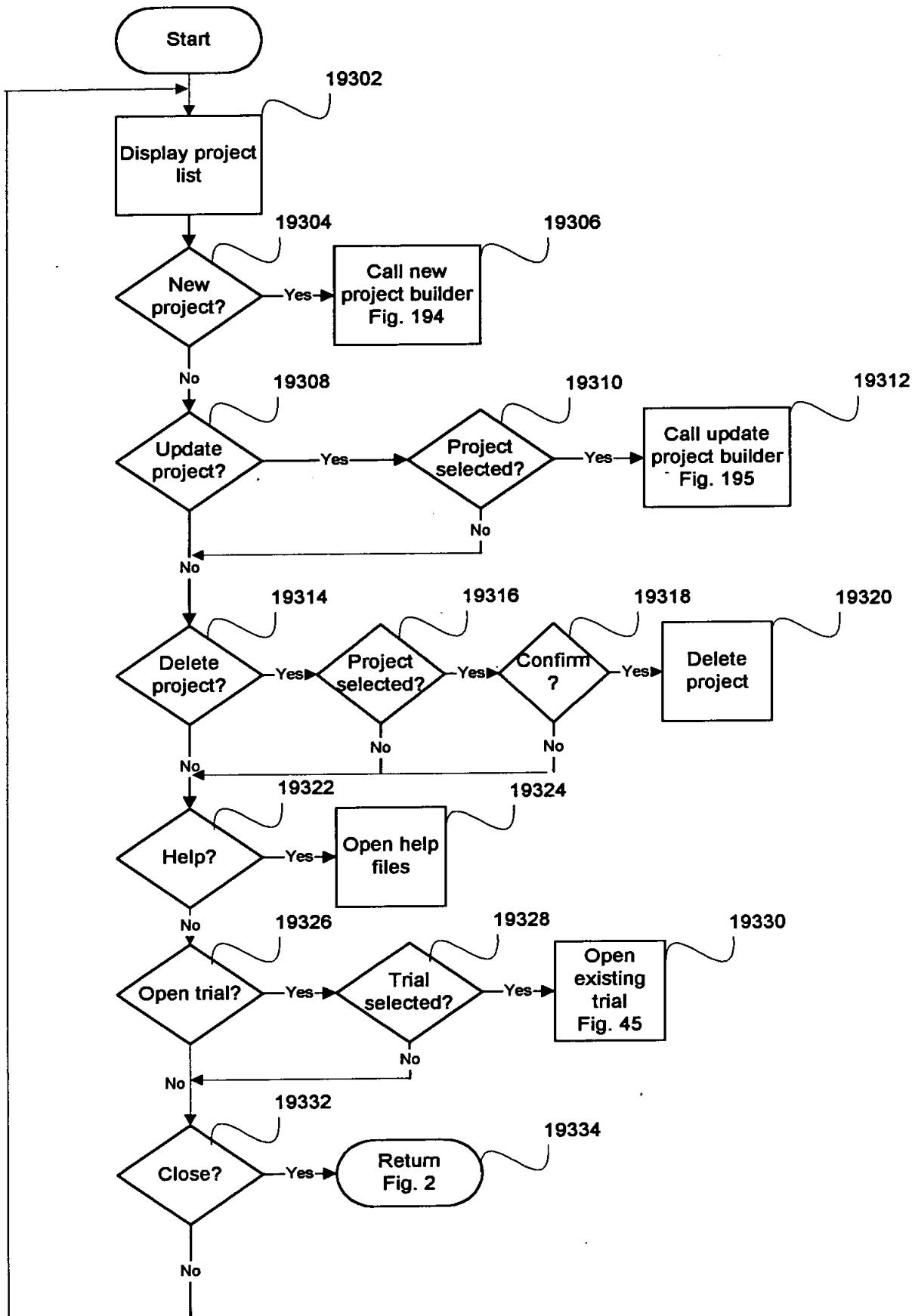


FIGURE 193

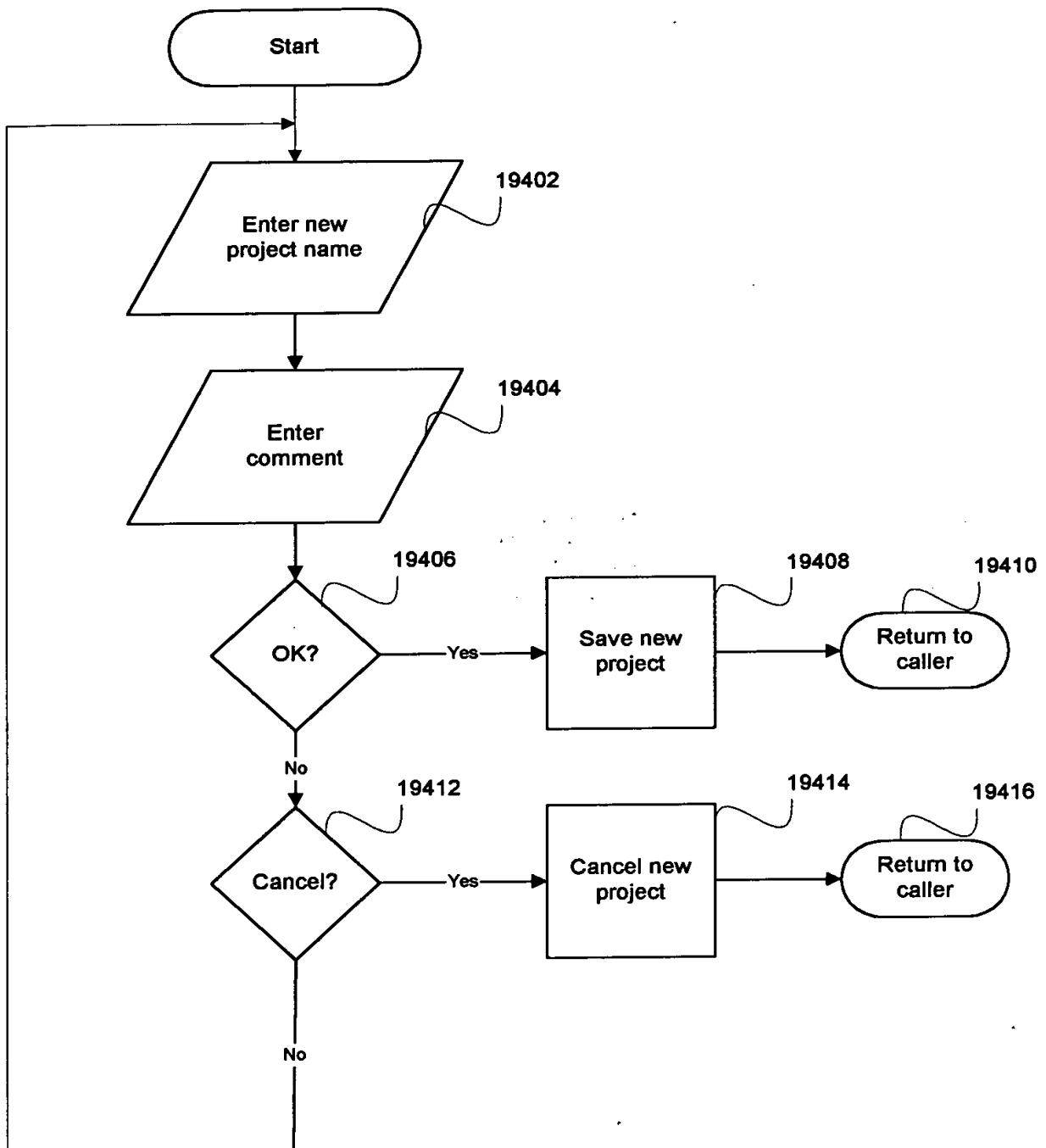
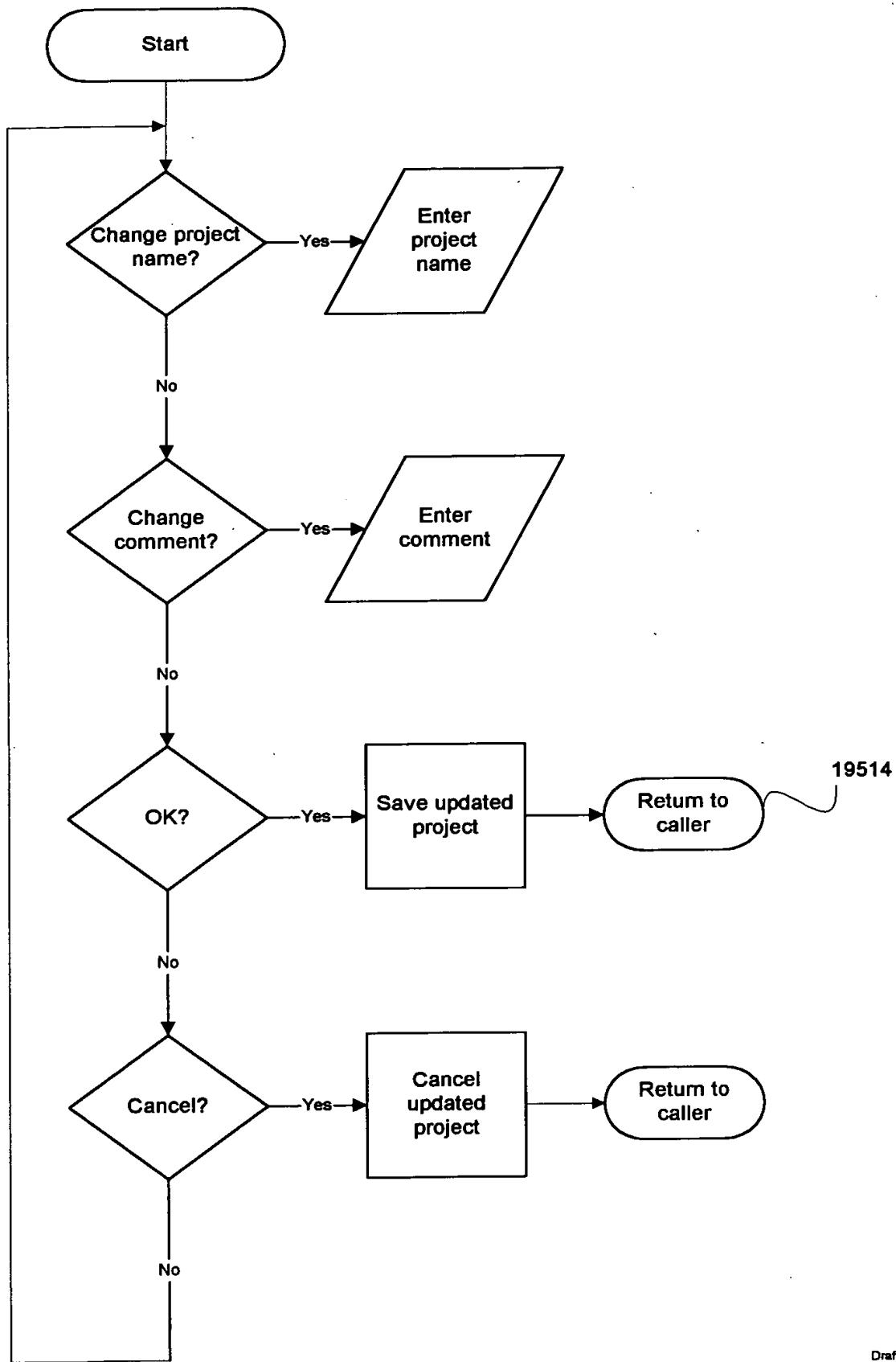


FIGURE 194

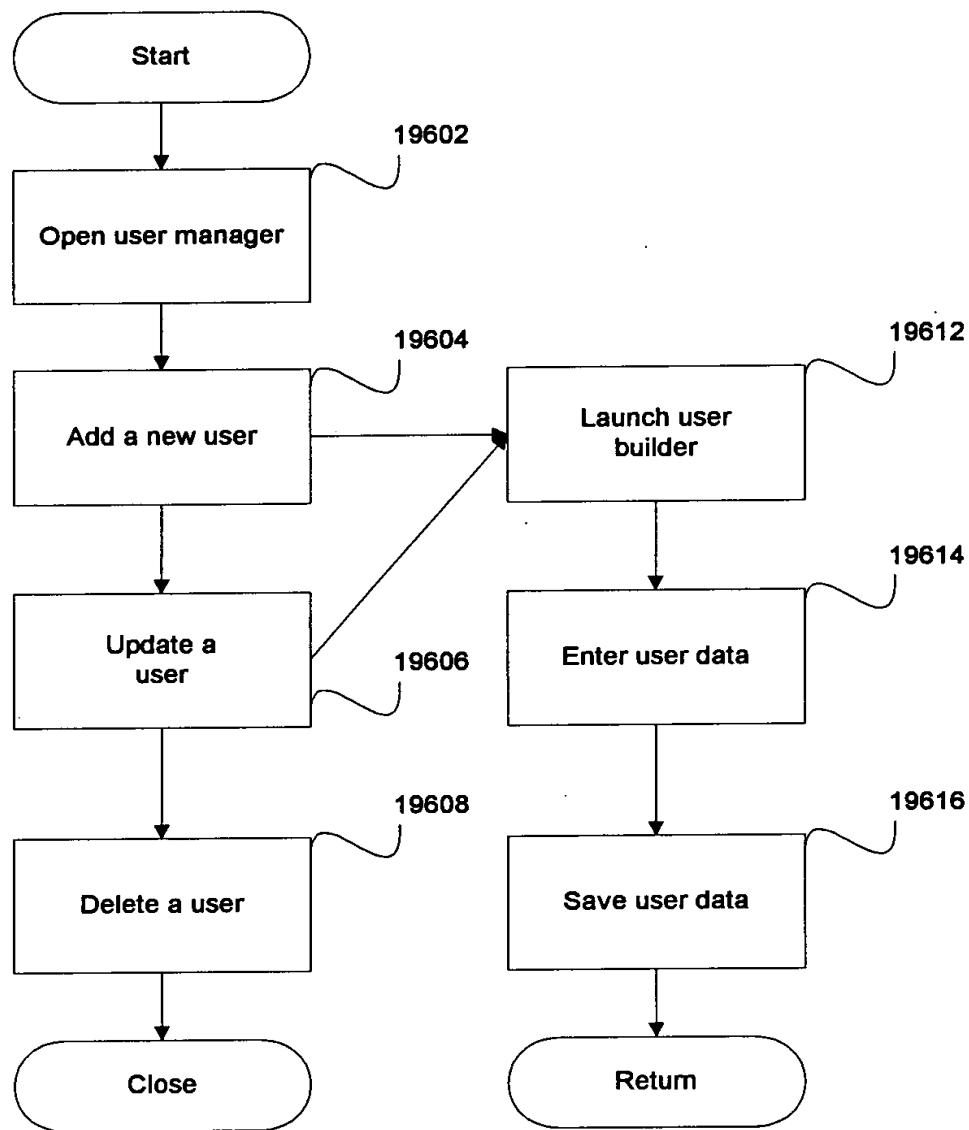
00000000000000000000000000000000



Draft
flow19.vsd
8/1/00 (3:53:11 PM)

FIGURE 195

0963185 - 080200



Draft
flow20.vsd
8/1/00 (3:54:09 PM)

FIGURE 196

0963118 - 080200

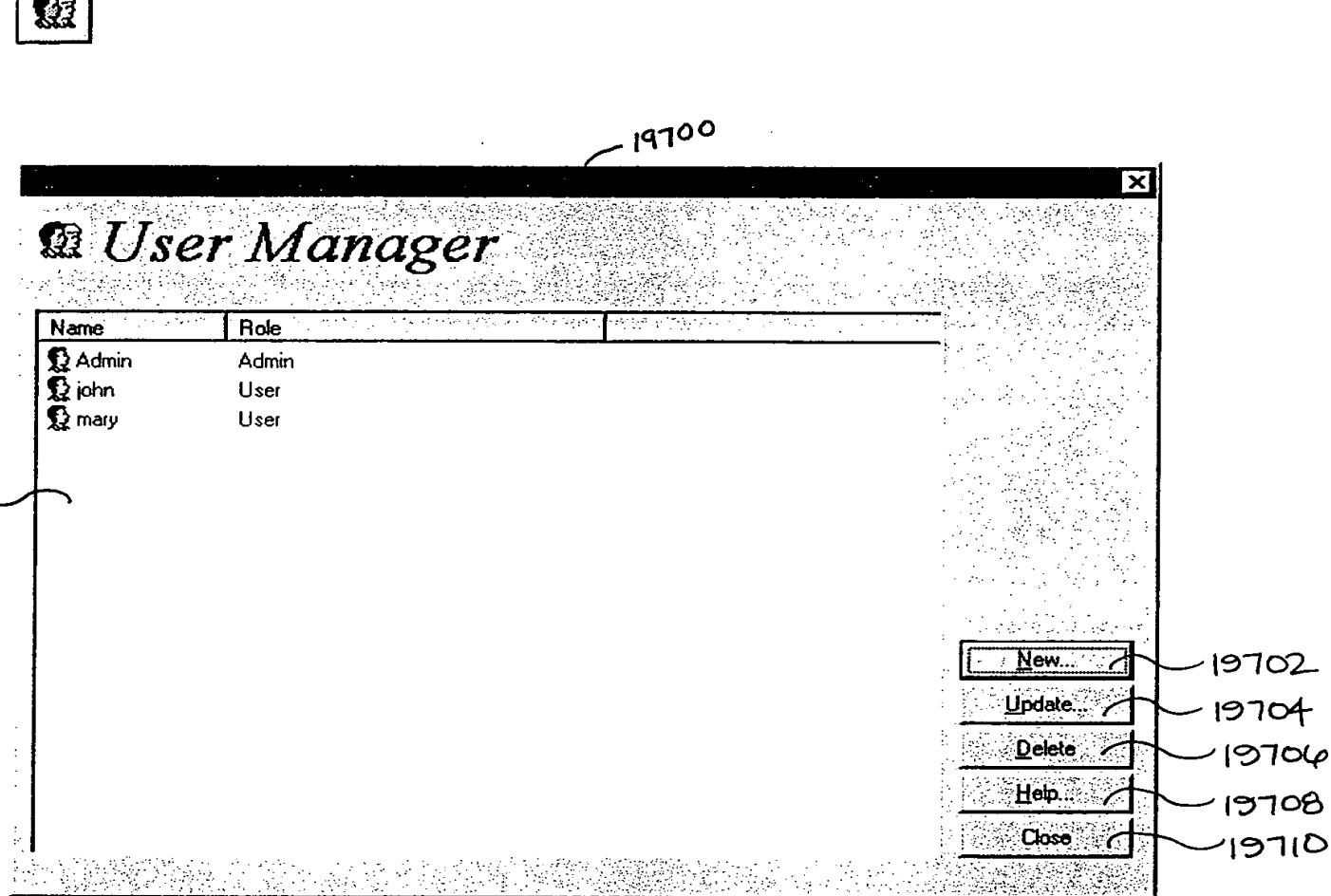
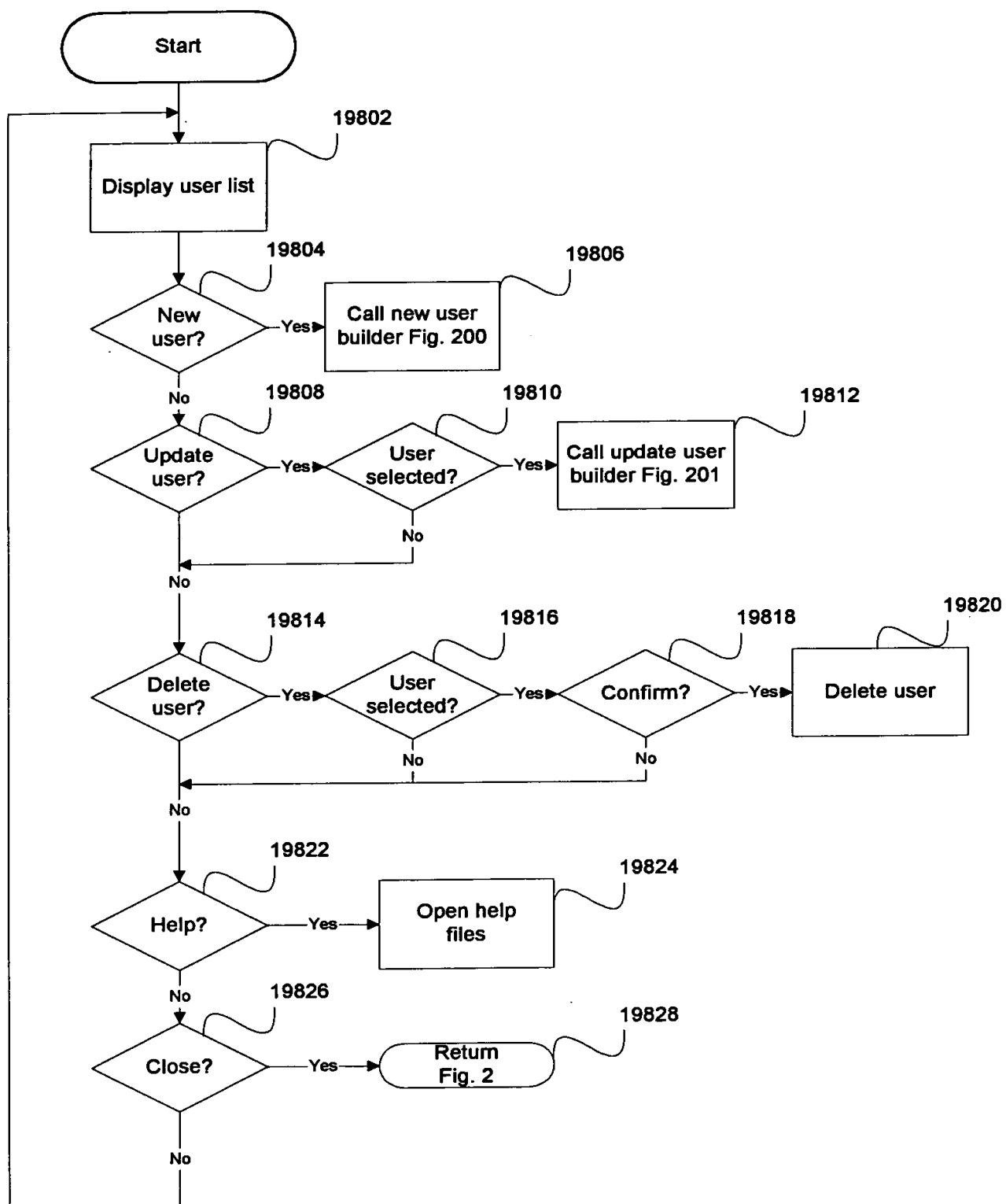


Fig. 197

**FIGURE 198**

19902
19904
19906
19908
09631485 - 080200

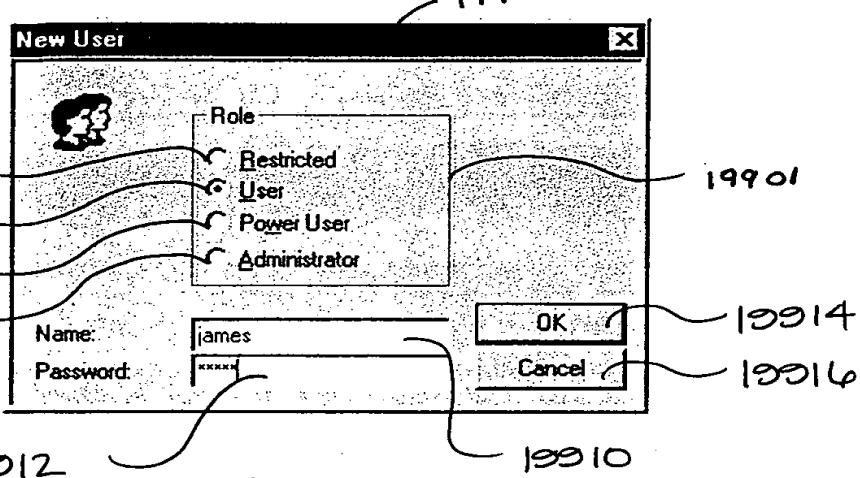


Fig. 199

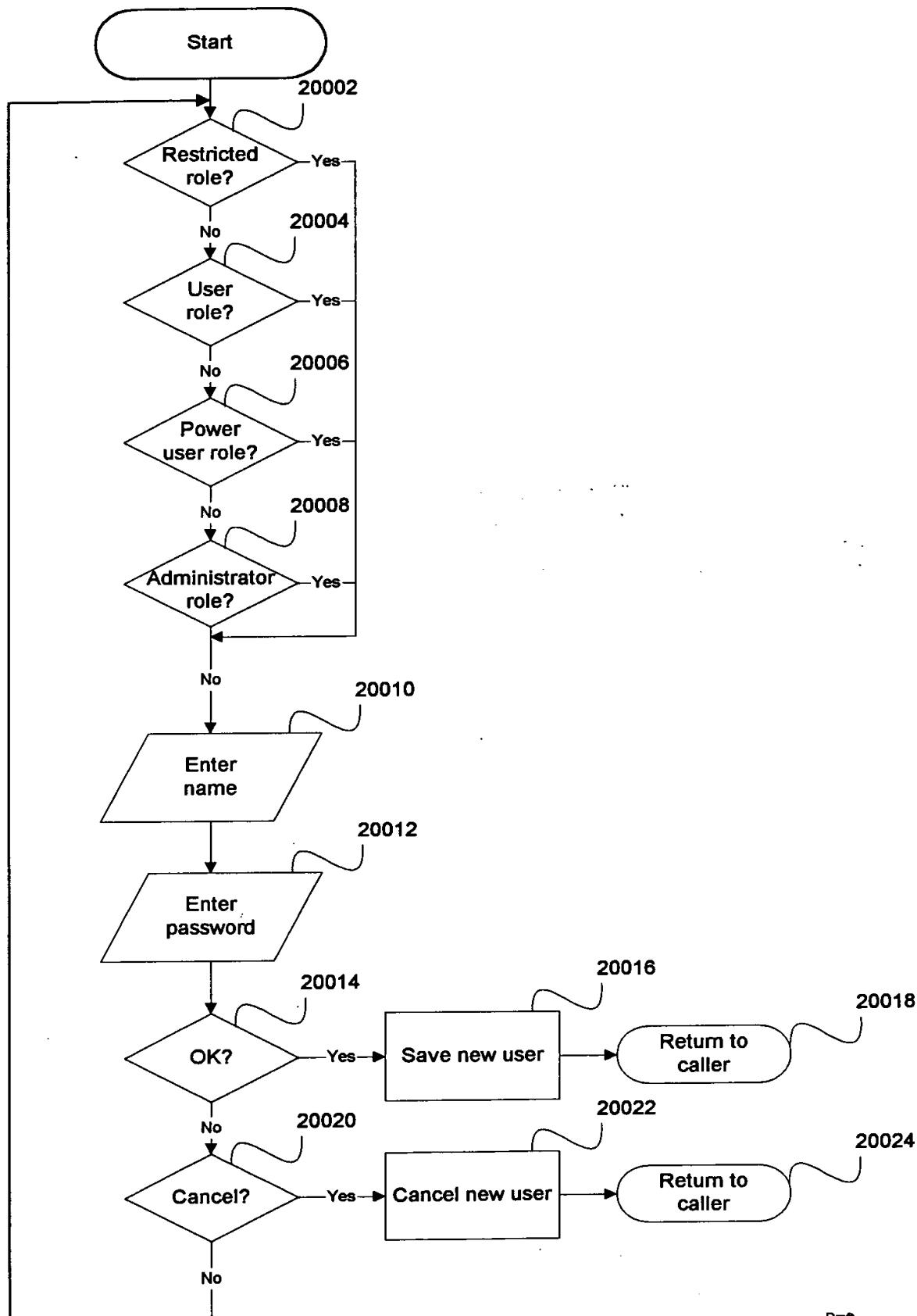


FIGURE 200

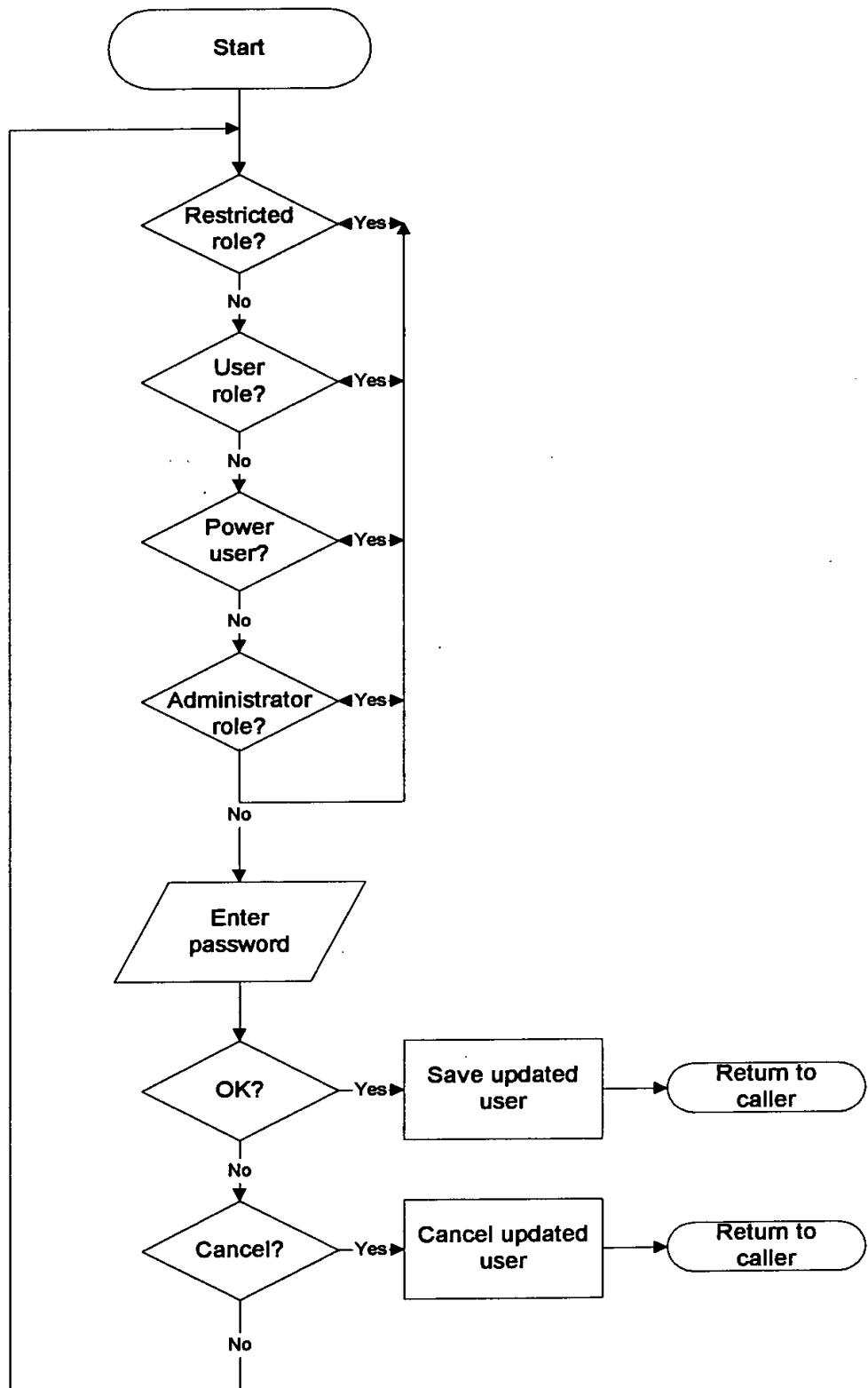


FIGURE 201

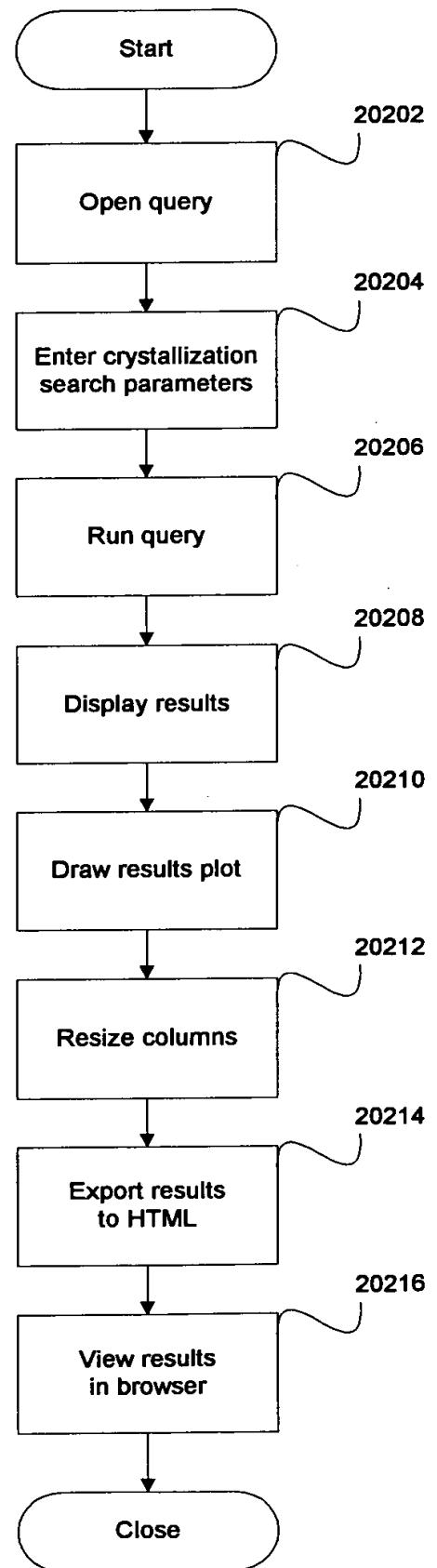


FIGURE 202

20300

20301

20304

20306

20308

20312

20310

20302

0 9 8 7 6 5 4 3 2 1 0

Crystal Query

Draw plot... | Query | Fixed Resize | Exp. to HTML... | View in Browser..

Types

- Spherulite
- PhaseSep.
- Skin
- Precipitate
- MicroCrystal

Shapes

- Needle
- Plate
- Pyramid
- Block
- Hexagon
- Leaf
- Urchin
- Rod

Sizes

- Tiny
- Small
- Medium
- Big

Misc.

- Twin
- Clear
- Image

User def.

- User def 1
- User def 2
- User def 3

Help

Observation sessions which are open and not in recording mode are queried. Click on column heading for sorting. Double-click on a row to see drop composition details.

T... S... W... Crystal... Size C... Te... Morphology S... (Cpk-) Macro... Compound Buffer

*** 3 3 07	Wzrd1 07	n/a	n/a	25.00	MicroCrystal	iprotein040300	100.000 mM pH 6.00 MES/NaCl
• 3 3 13	Wzrd1 13	Tiny	1	25.00	Block	iprotein040300	100.000 mM pH 6.50 Na cacod
• 3 3 16	Wzrd1 16	Medium	n/a	25.00	Plate	iprotein040300	100.000 mM pH 6.20 Na2H ph
▲ 3 3 17	Wzrd1 17	Small	5	25.00	Pyramid	iprotein040300	100.000 mM pH 4.50 acetic aci

Close

Help

Fig. 203

00200 "S8TTE960

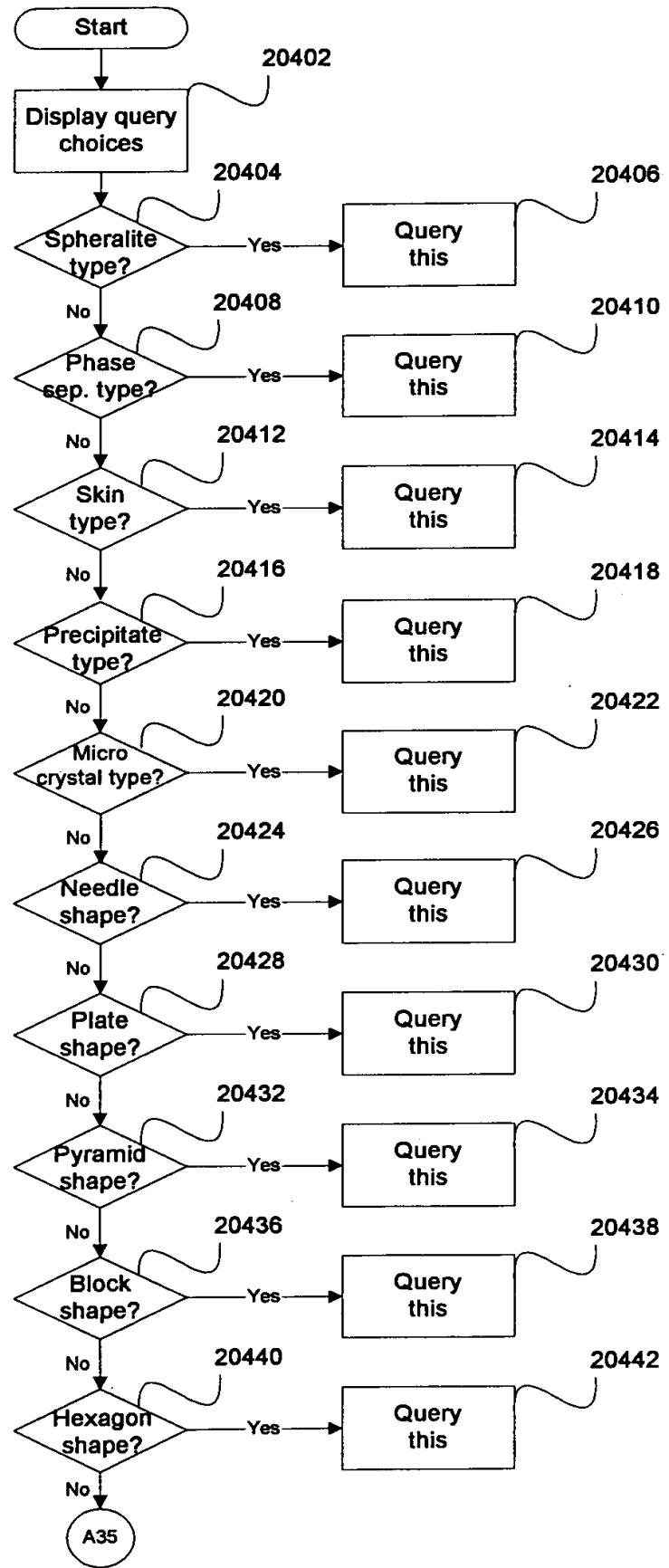


FIGURE 204

002000 002000 002000

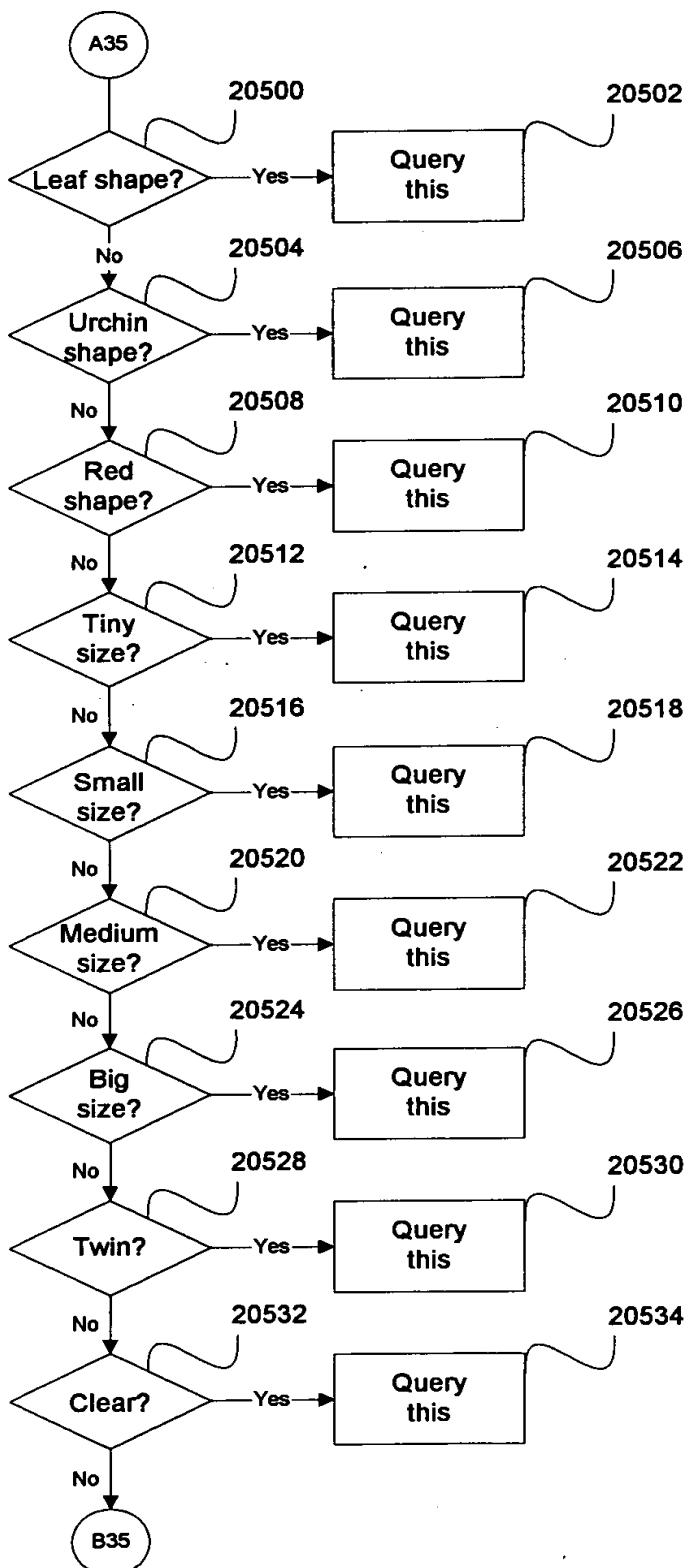


FIGURE 205

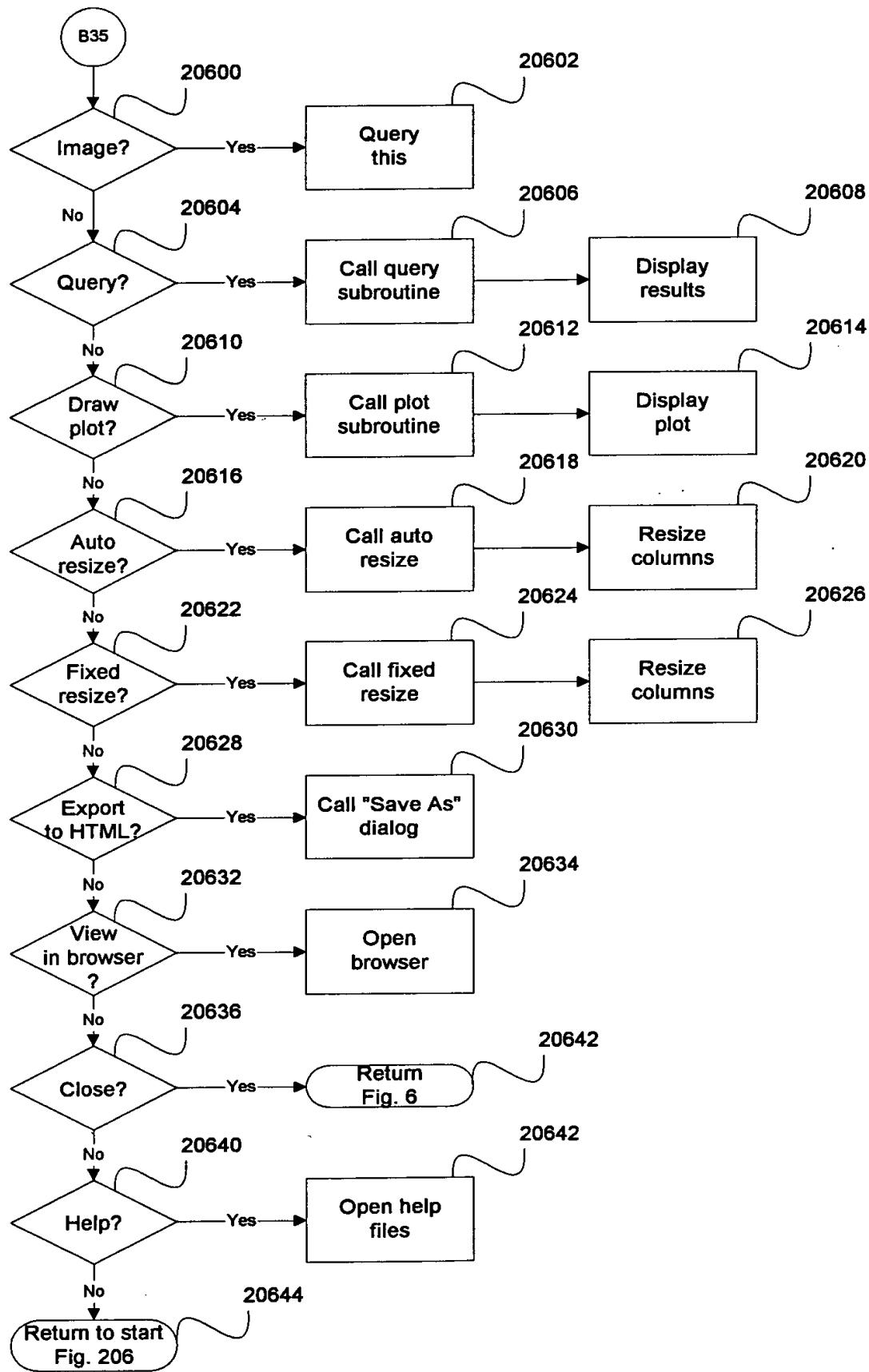


FIGURE 206

0000110000000000

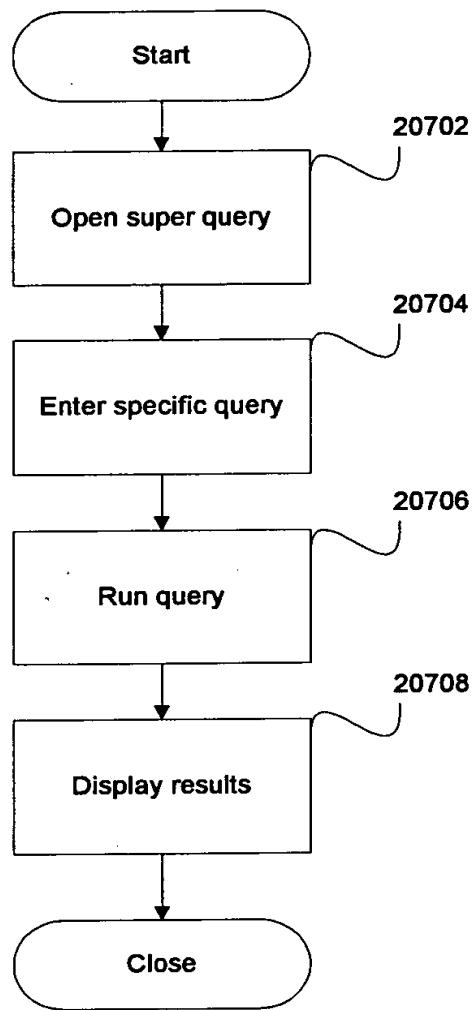


FIGURE 207

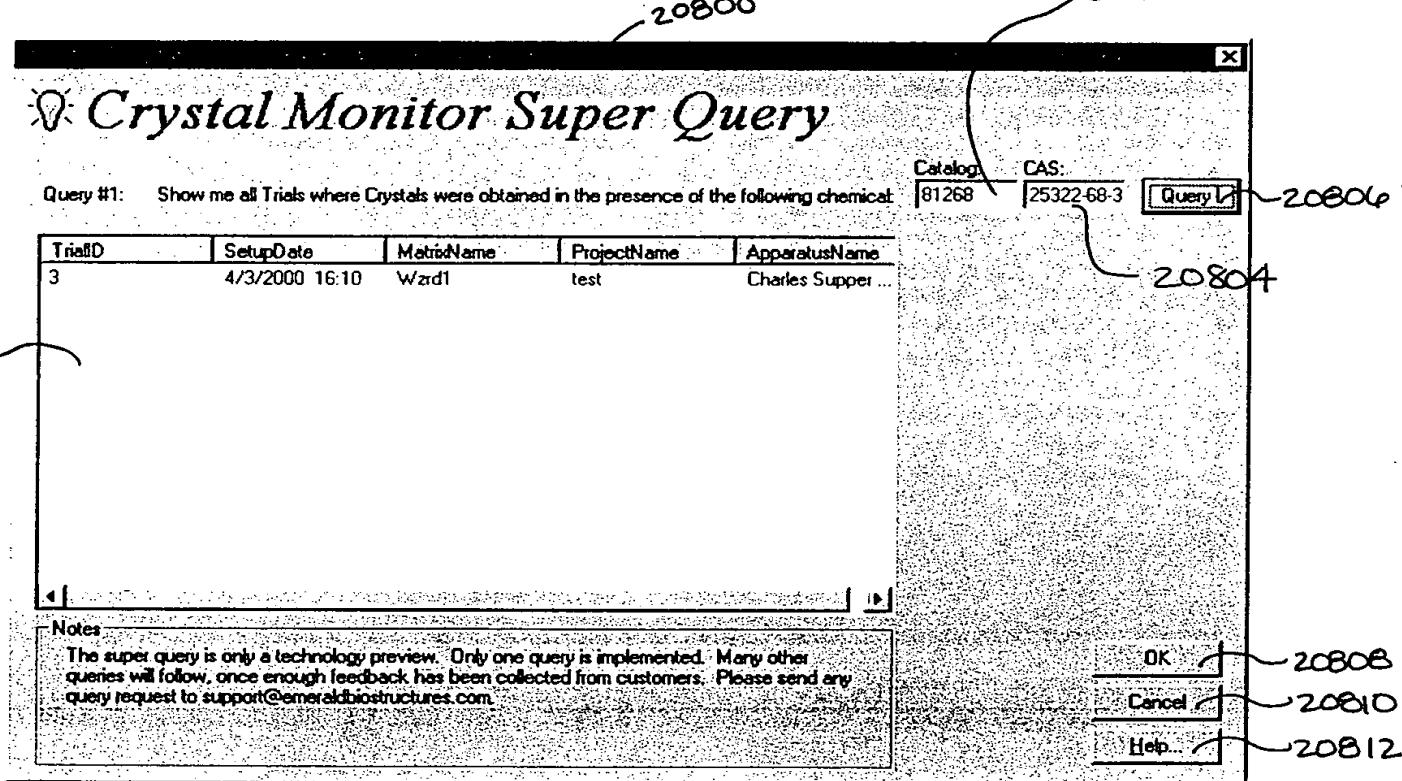
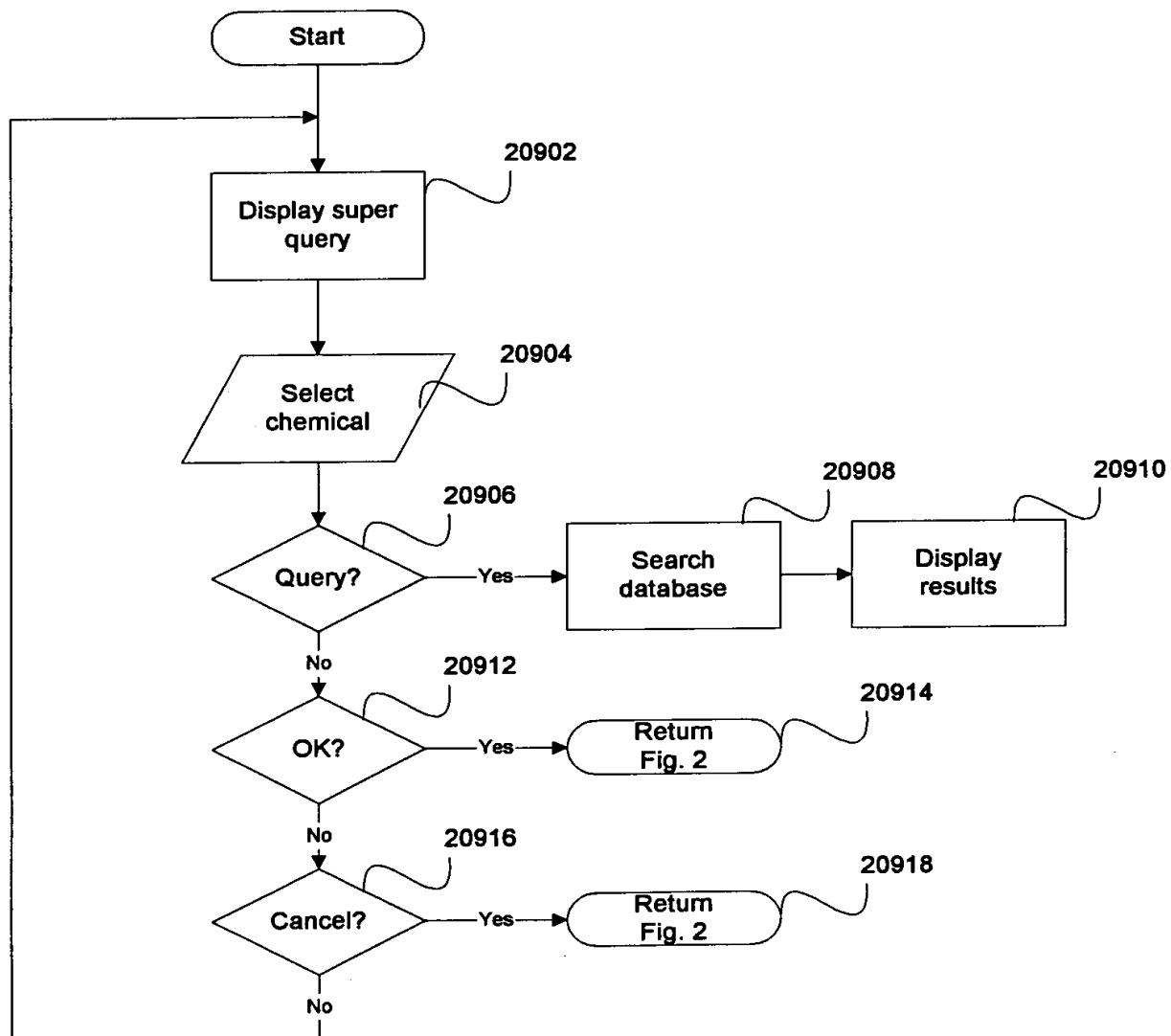


Fig. 208

**FIGURE 209**

000000000000000000000000

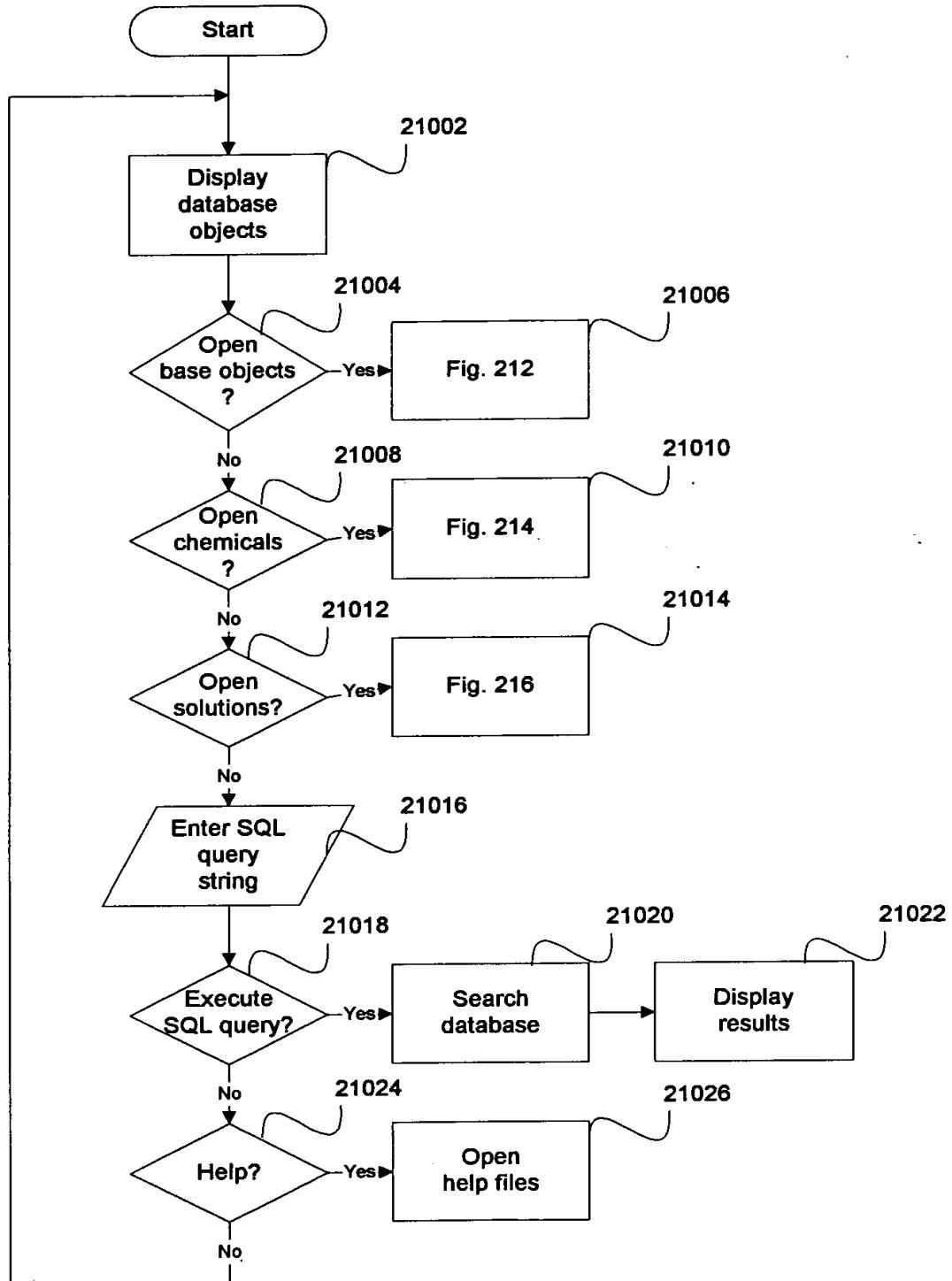


FIGURE 210



Database Object Manager

Crystal Monitor Objects:

- Base Objects
- Chemicals
 - Buffering Agent
 - pHConjugate
 - Precipitant
 - CSI**
 - Chelator
 - Detergent
 - ReducingAgent
 - CryoCoolant
 - NucleationSuppressant
 - Organic
 - HeavyAtomCompound
 - Metal
 - Gas
 - Solvent
 - Other
- Solutions
- Data Mining

Attributes

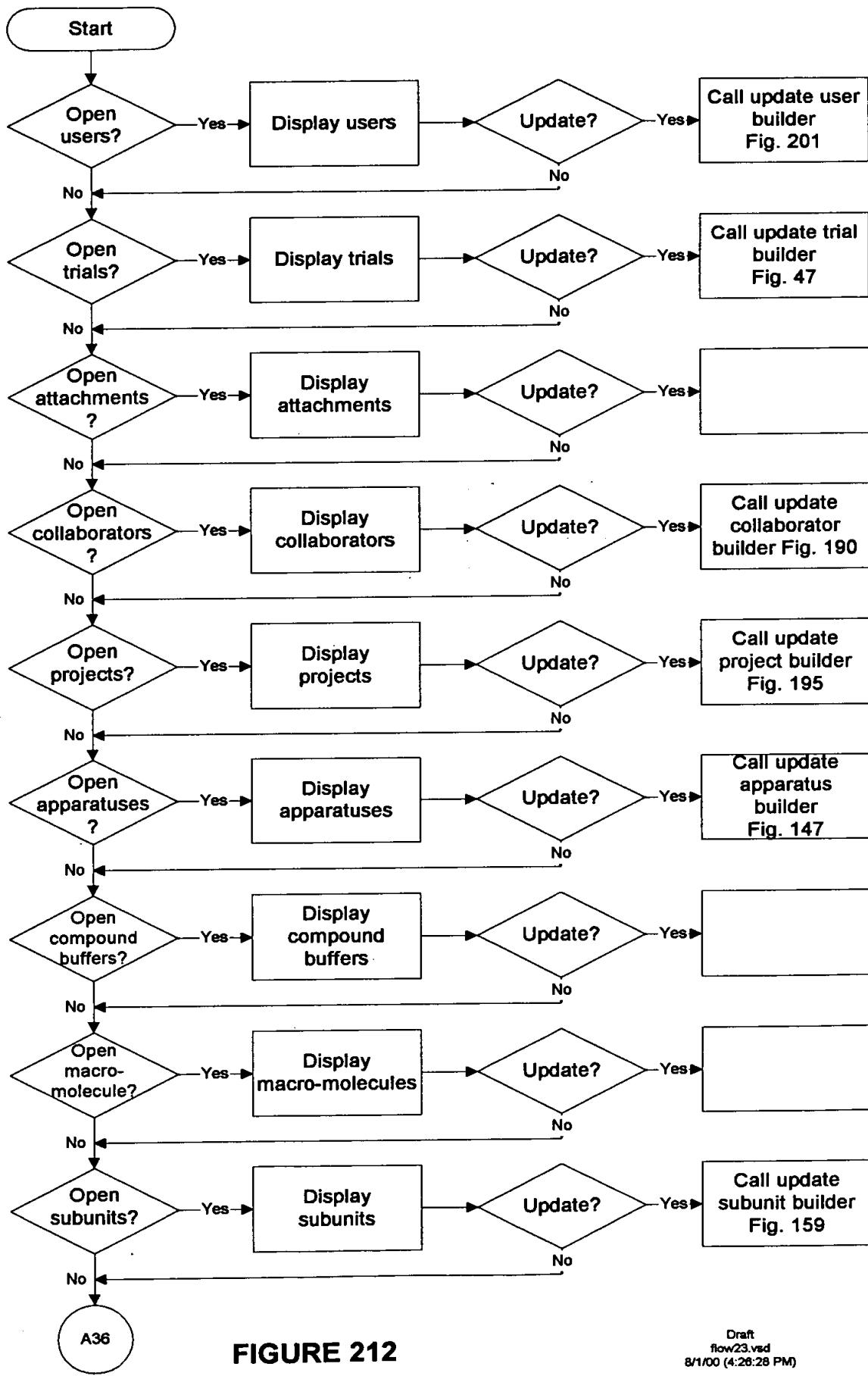
ChemicalName	ShortName	Formula	MolecularMass
dimethylarsinic ...	sodium cacodyl...	C ₂ H ₆ AsO ₂ Na	160.
sodium citrate tri...	sodium citrate	C ₆ H ₅ Na ₃ O ₇ ·2H ₂ O	294.1
ammonium sulfate	ammonium sulfate	(NH ₄) ₂ SO ₄	132.1
ammonium sulfate	ammonium sulfate	(NH ₄) ₂ SO ₄	132.1
ammonium sulfate	ammonium sulfate	(NH ₄) ₂ SO ₄	132.1
lithium sulfate m...	lithium sulfate	Li ₂ SO ₄ ·H ₂ O	128.
ammonium phos...	dibasic ammoniu...	(NH ₄) ₂ HPO ₄	132.1
sodium chloride	sodium chloride	NaCl	58.44
sodium phospho...	monobasic sodi...	NaH ₂ PO ₄	120.
sodium phospho...	monobasic sodi...	NaH ₂ PO ₄	120.
sodium phospho...	monobasic sodi...	NaH ₂ PO ₄	119.96
potassium sodium...	KNa tartrate	C ₄ H ₄ O ₆ NaK·4H ₂ O	282.2
sodium formate	sodium formate	CHO ₂ Na	68.01
zinc acetate dih...	zinc acetate	Zn(C ₂ H ₃ O ₂) ₂ ·2H ₂ O	219.5
magnesium chlo...	magnesium chlo...	MgCl ₂ ·6H ₂ O	203.3
calcium acetate	calcium acetate	Ca(C ₂ H ₃ O ₂) ₂	158.2
magnesium acet...	magnesium acet...	Mg(C ₂ H ₃ O ₂) ₂ ·4H ₂ O	214.5

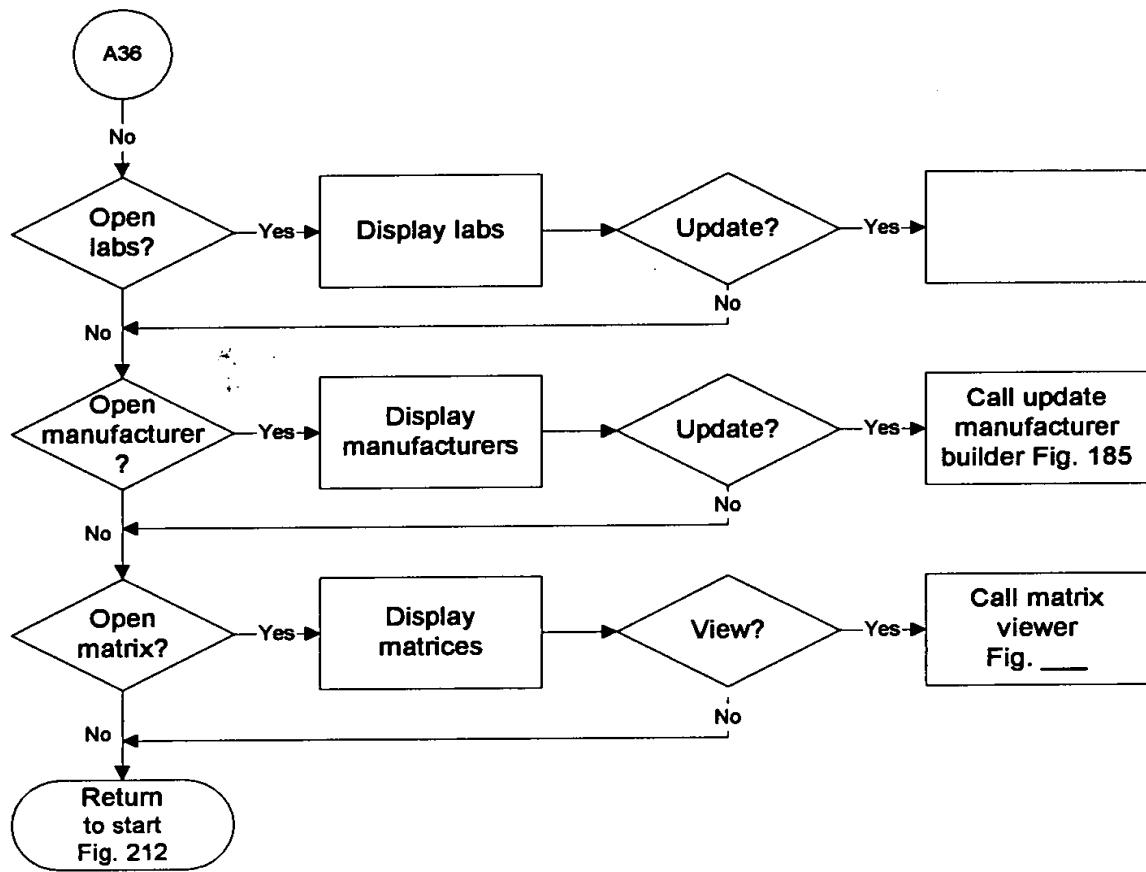
21106
21112
21101
21108
21110
21102
21104
21100
21102
21102
21104

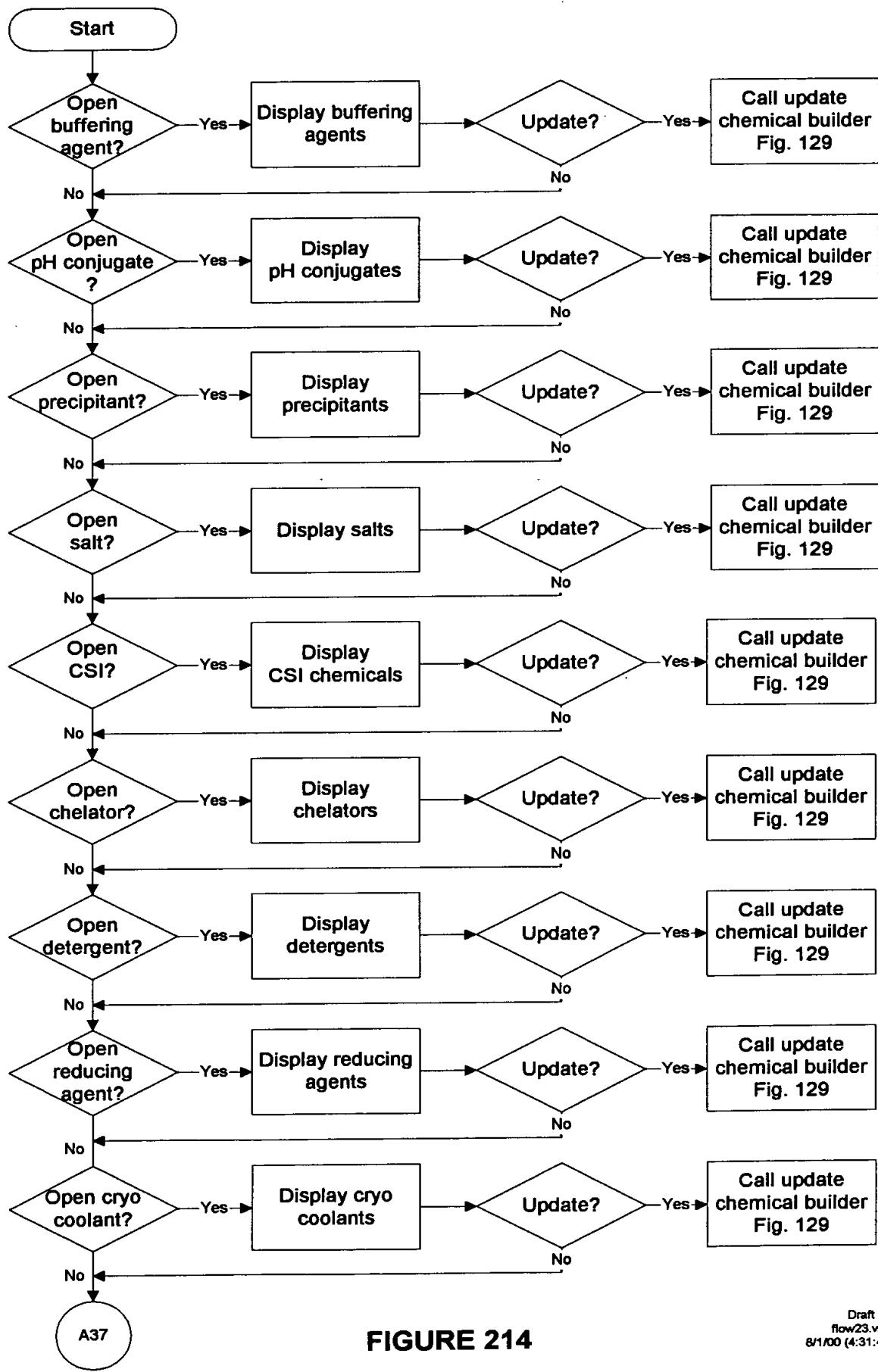
Execute SQL Query
26 rows. Query time: 411 ms

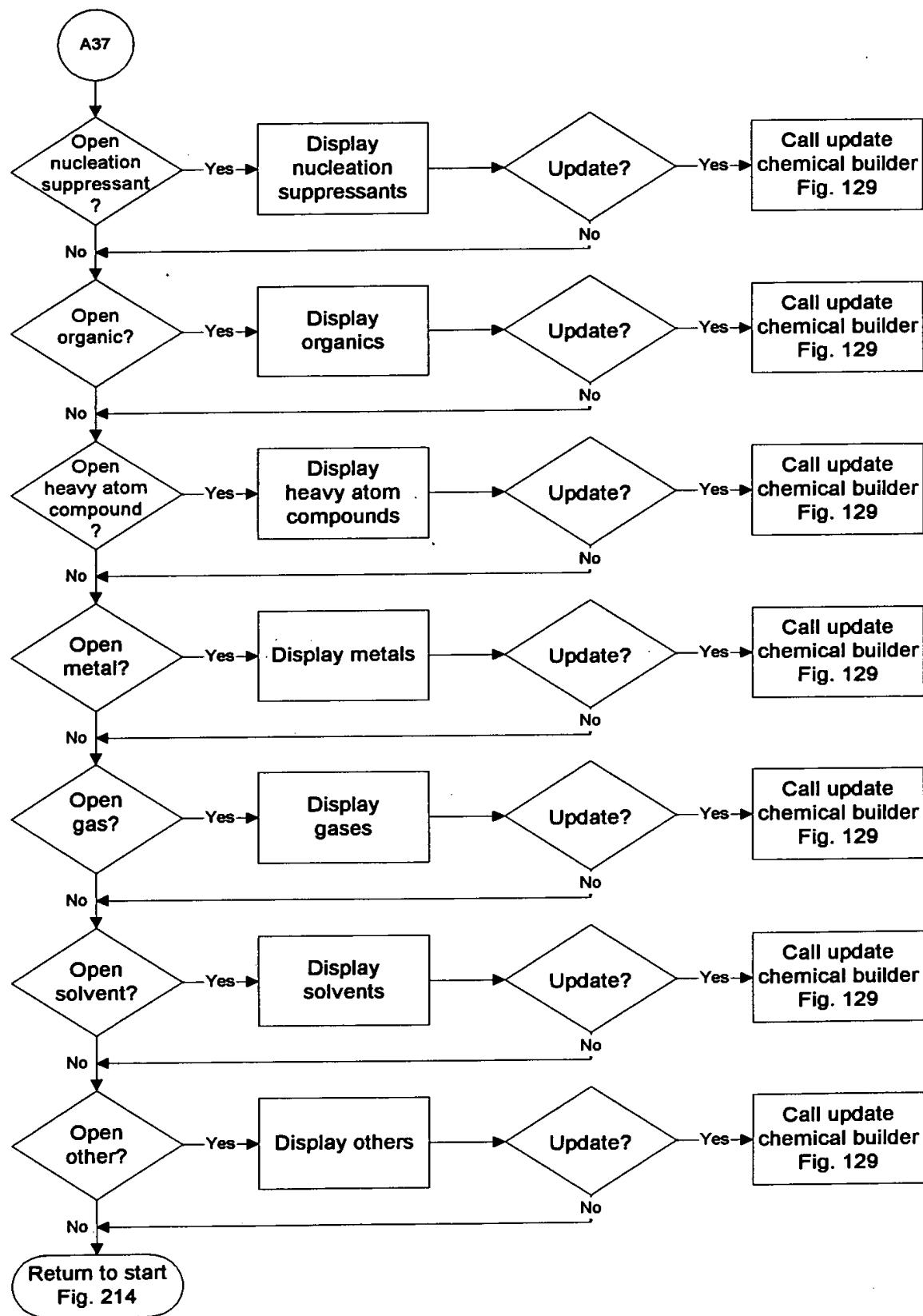
Help

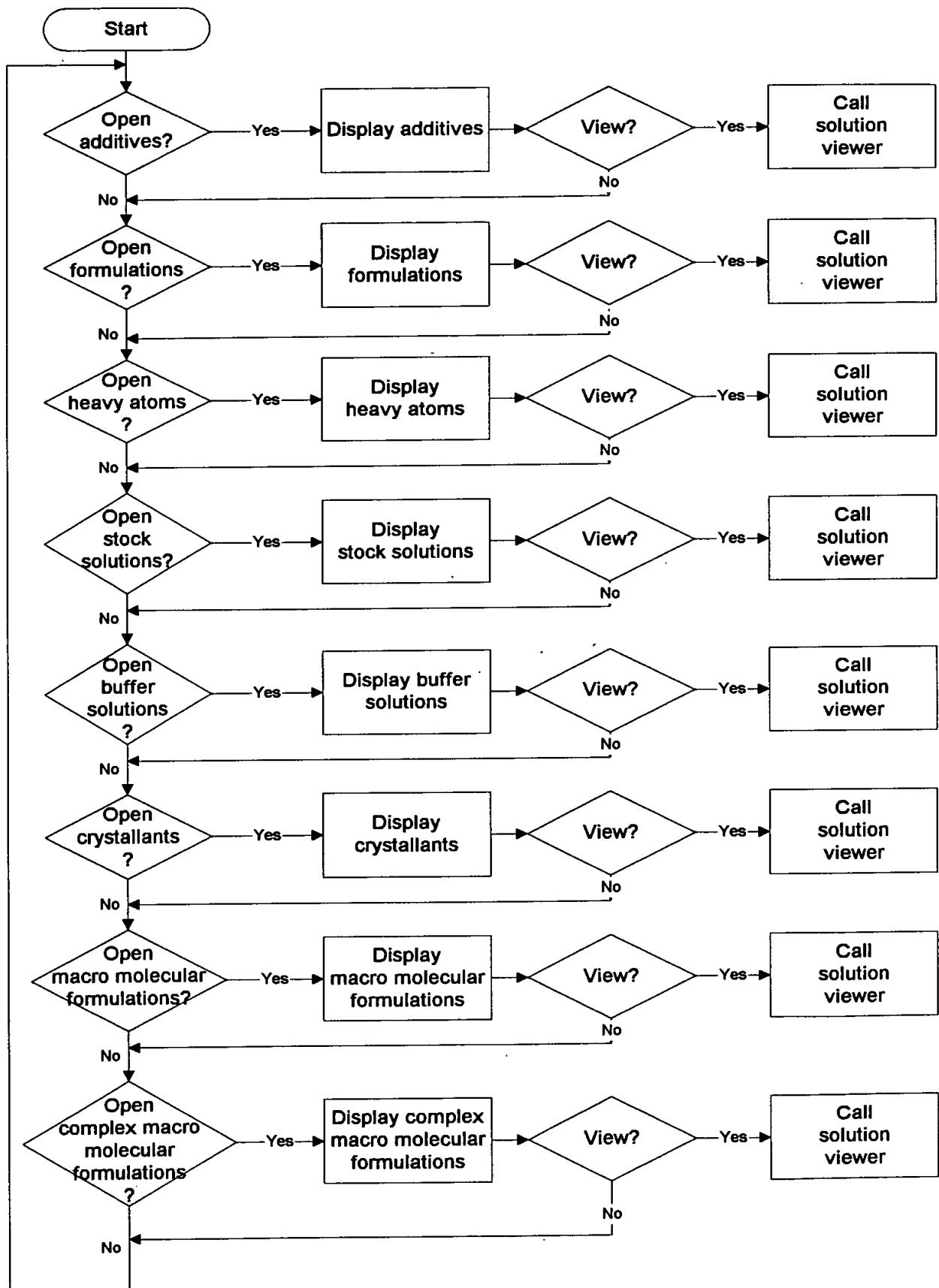
Fig. 211

**FIGURE 212**

**FIGURE 213**

**FIGURE 214**

**FIGURE 215**

**FIGURE 216**

21700

The screenshot shows a software interface titled "Database Object Manager" with a window titled "Crystal Monitor Objects". On the left, there is a tree view of "Base Objects" under "Chemicals", listing categories like Buffering Agent, pHConjugate, Precipitant, Salt, CSI, Chelator, Detergent, ReducingAgent, CryoCoolant, NucleationSuppressant, Organic, HeavyAtomCompound, Metal, Gas, Solvent, Other, and Solutions. On the right, a table titled "Attributes" displays 16 rows of chemical data. The columns are Catalog, CAS, ChemicalName, ShortName, and Formula. The data includes various potassium compounds such as KCN, K2PtCl4, K2 D-fructose 6-phosphate, K HQSA, K Na tartrate, K H2 phosphate, K2 H phosphate, K Na tartrate, K H2 phosphate, K F, K SCN, K Cl, K2 sulfate, and K2 tartrate. Below the table, a SQL query is shown: "select * from chemicals where chemicalname like '%potass%'".

Catalog	CAS	ChemicalName	ShortName	Formula
20,781-0	151-50-8	potassium cyanide	KCN	K
78-1970	10025-99-7	potassium tetraphenylborate	K2PtCl4	K
F1502	103213-47-4	D-fructose 6-phosphate	K2 D-fructose 6-phosphate	K
H7273	21799-87-1	hydroquinonesulfonate	K HQSA	C
HR2-539	6381-59-5	potassium/sodium tartrate	K Na tartrate	K
HR2-553	7778-77-0	potassium dihydrogen phosphate	K H2 phosphate	K
HR2-635	7758-11-4	di-potassium hydrogen phosphate	K2 H phosphate	K
P0165	6381-59-5	potassium sodium tartrate	K Na tartrate	C
P0662	7778-77-0	potassium phosphate	K H2 phosphate	K
P2569	7789-23-3	potassium fluoride	KF	K
P2713	333-20-0	potassium thiocyanate	KSCN	K
P3786	7758-11-4	potassium phosphate	K2 H phosphate	K
P5708	127-08-2	potassium acetate	KAc	K
P9333	7447-40-7	potassium chloride	KCl	K
P9458	7778-80-5	potassium sulfate	K2 sulfate	K
T6897	921-53-9	potassium tartrate	K2 tartrate	K

Execute SQL Query select * from chemicals where chemicalname like '%potass%' Help...
16 rows. Query time: 361 ms

FIG. 217

21800

The screenshot shows a software interface titled "Database Object Manager". On the left, a tree view lists "Crystal Monitor Objects" under "Base Objects", including Chemicals, Buffering Agent, pHConjugate, Precipitant, Salt, CSI, Chelator, Detergent, ReducingAgent, CryoCoolant, NucleationSuppressant, Organic, HeavyAtomCompound, Metal, Gas, Solvent, Other, and Solutions. On the right, a table titled "Attributes" displays data from a database. The table has columns: Catalog, CAS, ChemicalName, and ShortName. The data includes various chemicals like ammonium acetate, ammonium bicarbonate, ammonium chloride, ammonium dihydrogen phosphate, ammonium formate, ammonium nitrate, ammonium phosphate, ammonium sulfate, barium chloride, calcium acetate, and calcium chloride. A specific row for barium chloride is highlighted.

Attributes:

Catalog	CAS	ChemicalName	ShortName
A7330	631-61-8	ammonium acetate	NH4 Ac
HR2-565	631-61-8	ammonium acetate	NH4 Ac
A6141	1066-33-7	ammonium bicarbonate	NH4 bicarbonate
A5666	12125-02-9	ammonium chloride	NH4 chloride
HR2-555	7722-76-1	ammonium dihydrogen phosphate	NH4 H2 phosph...
F2004	540-69-2	ammonium formate	NH3 formate
A7455	6484-52-2	ammonium nitrate	NH4 nitrate
A1167	7783-28-0	ammonium phosphate	(NH4)2 H phosph...
A2938	7783-20-2	ammonium sulfate	(NH4)2 sulfate
A938-500	7783-20-2	ammonium sulfate	(NH4)2 sulfate
HR2-541	7783-20-2	ammonium sulfate	(NH4)2 sulfate
JT0792-5	7783-20-2	ammonium sulfate	(NH4)2 sulfate
B6394	10326-27-9	barium chloride	Ba chloride
C4705	62-54-4	calcium acetate	CaAc2
HR2-567	62-54-4	calcium acetate	CaAc2
C5080	10035-04-8	calcium chloride	CaCl2

Execute SQL Query Help...
77 rows. Query time: 81 ms

FIG. 218

002080 = SETTERED

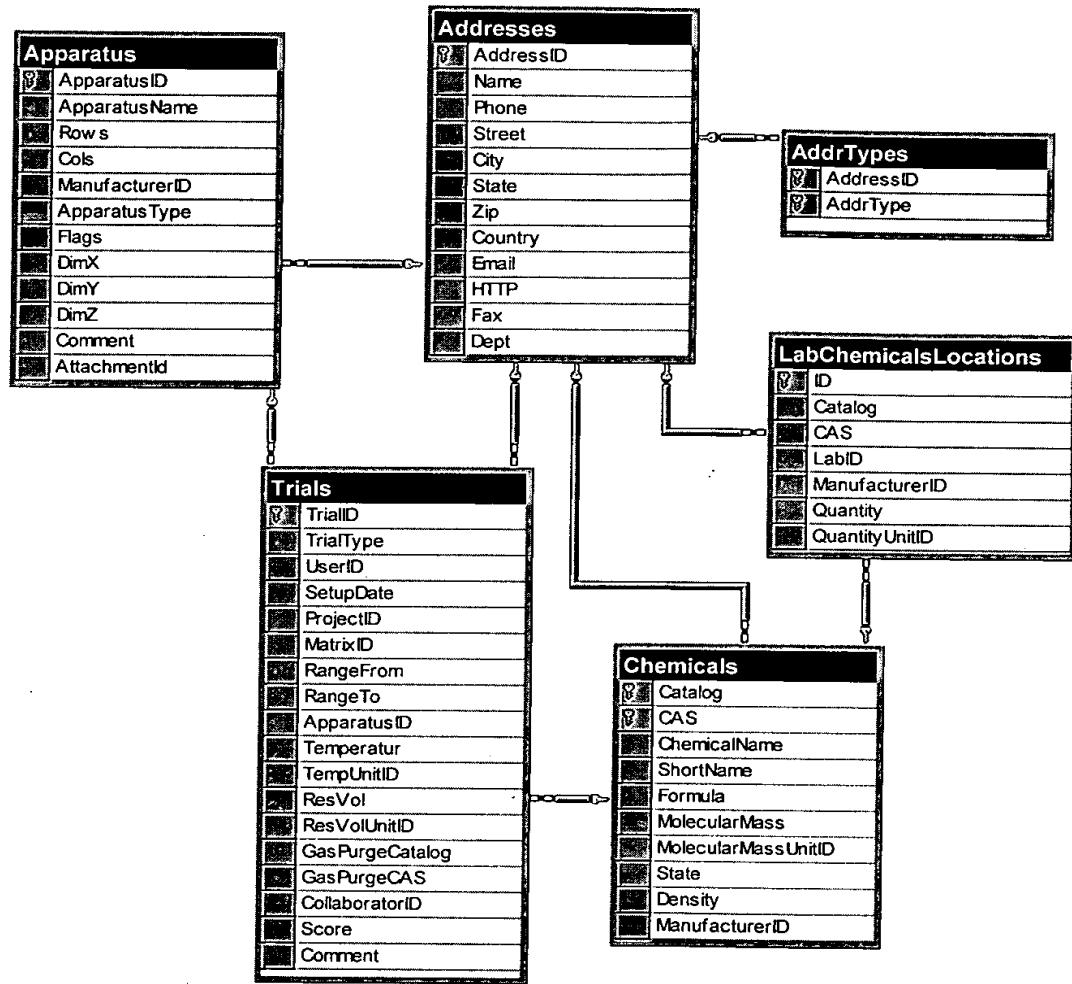


Fig. 219

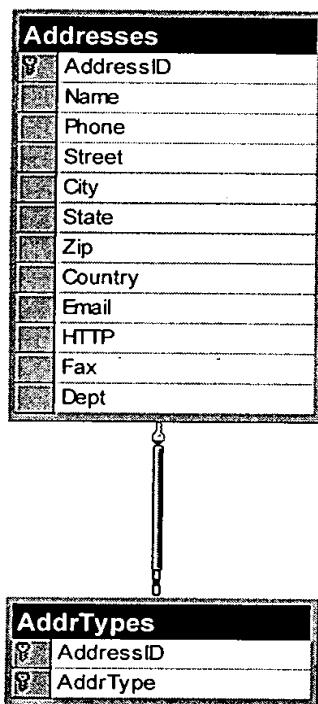


Fig. 220

09231435 - 080200

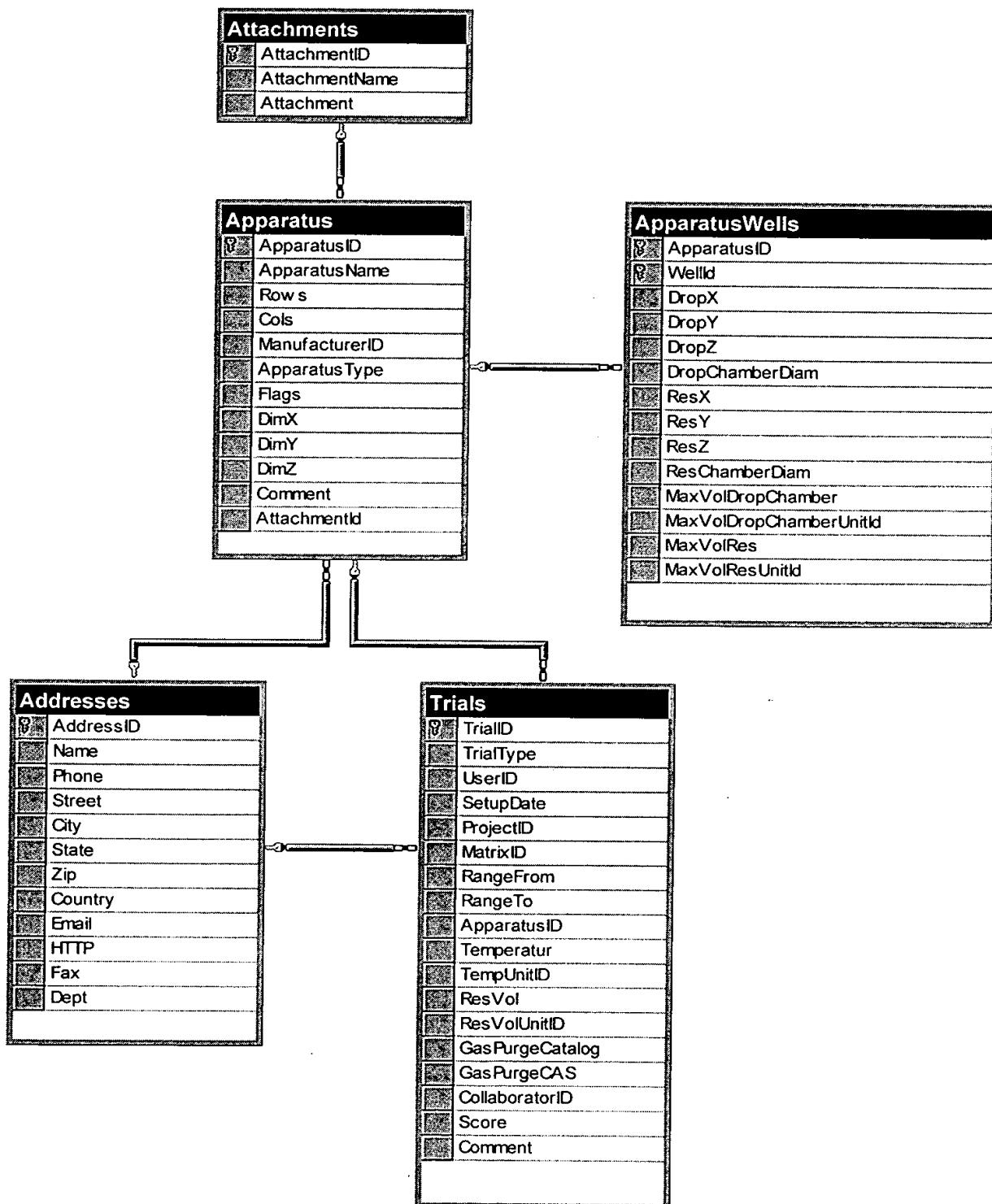


Fig. 221

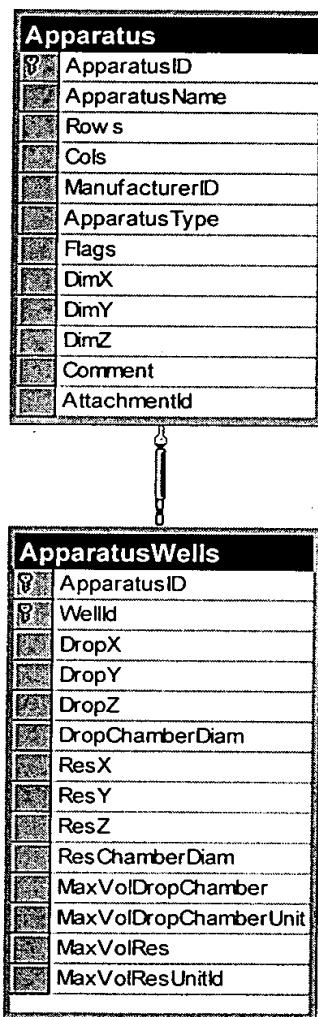


Fig. 222

00000000000000000000000000000000

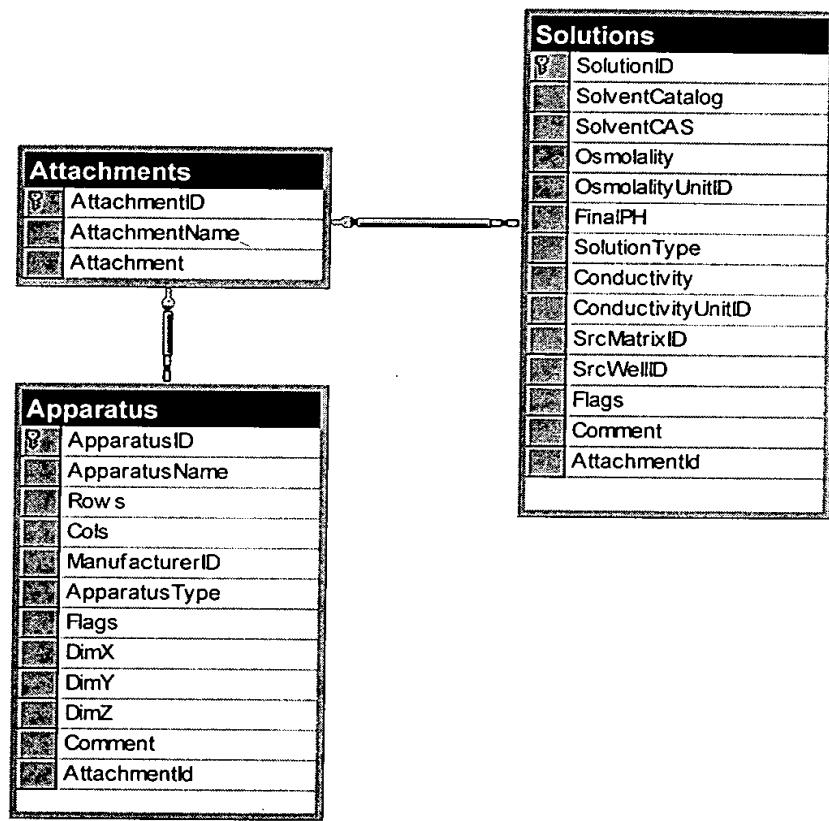
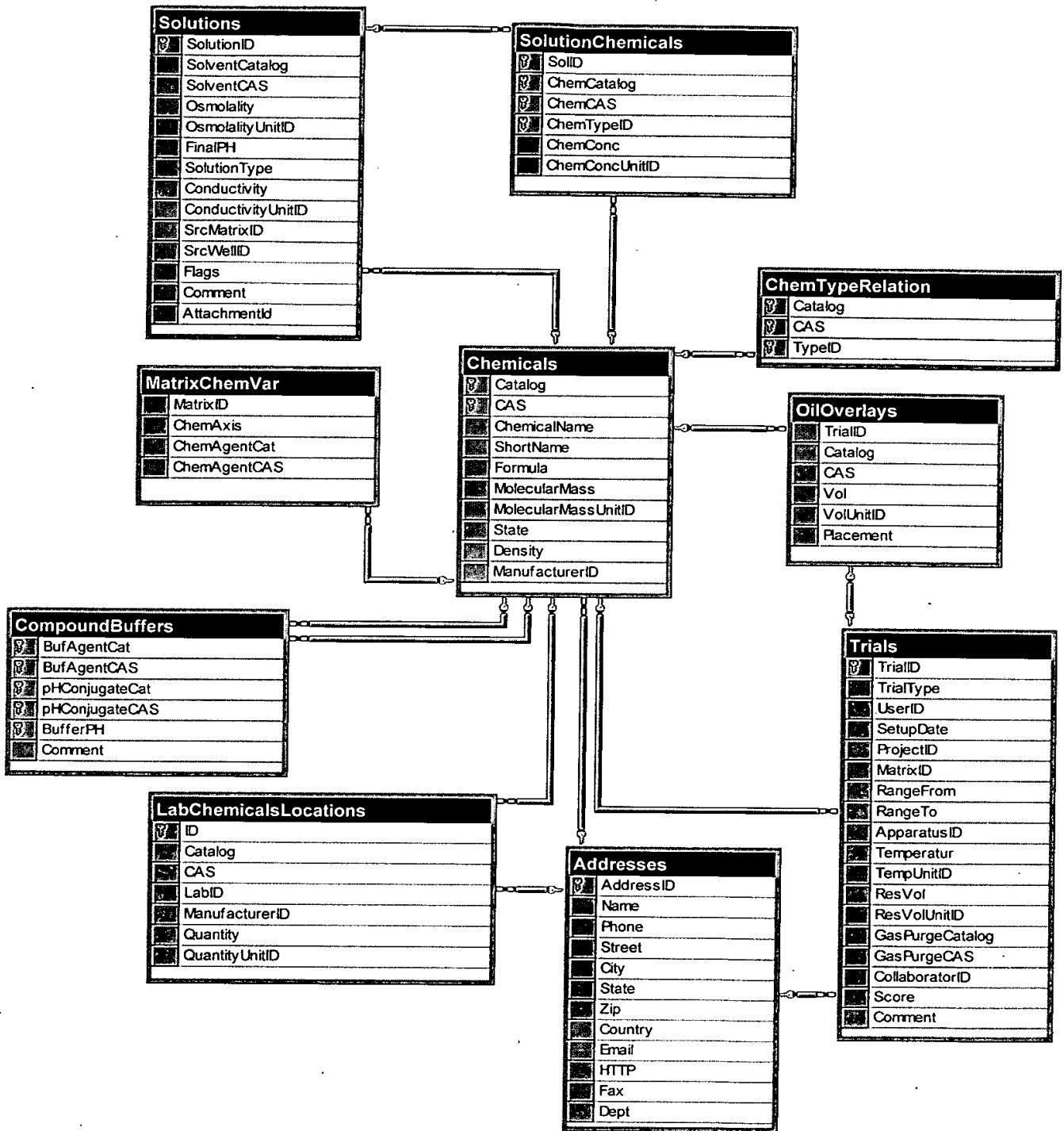


Fig. 223
1-1

09631185 - 080200



1-1

Fig. 224

00020080 "00020080

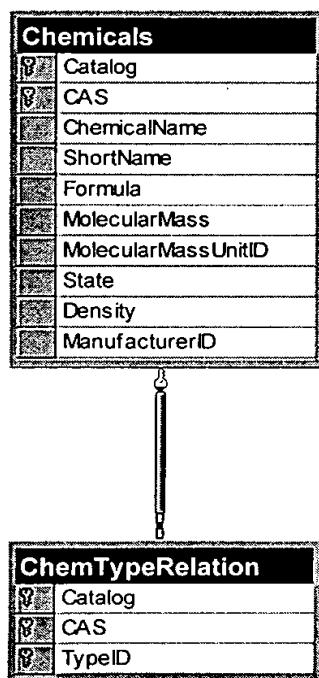


Fig. 225

09531185 - 030200

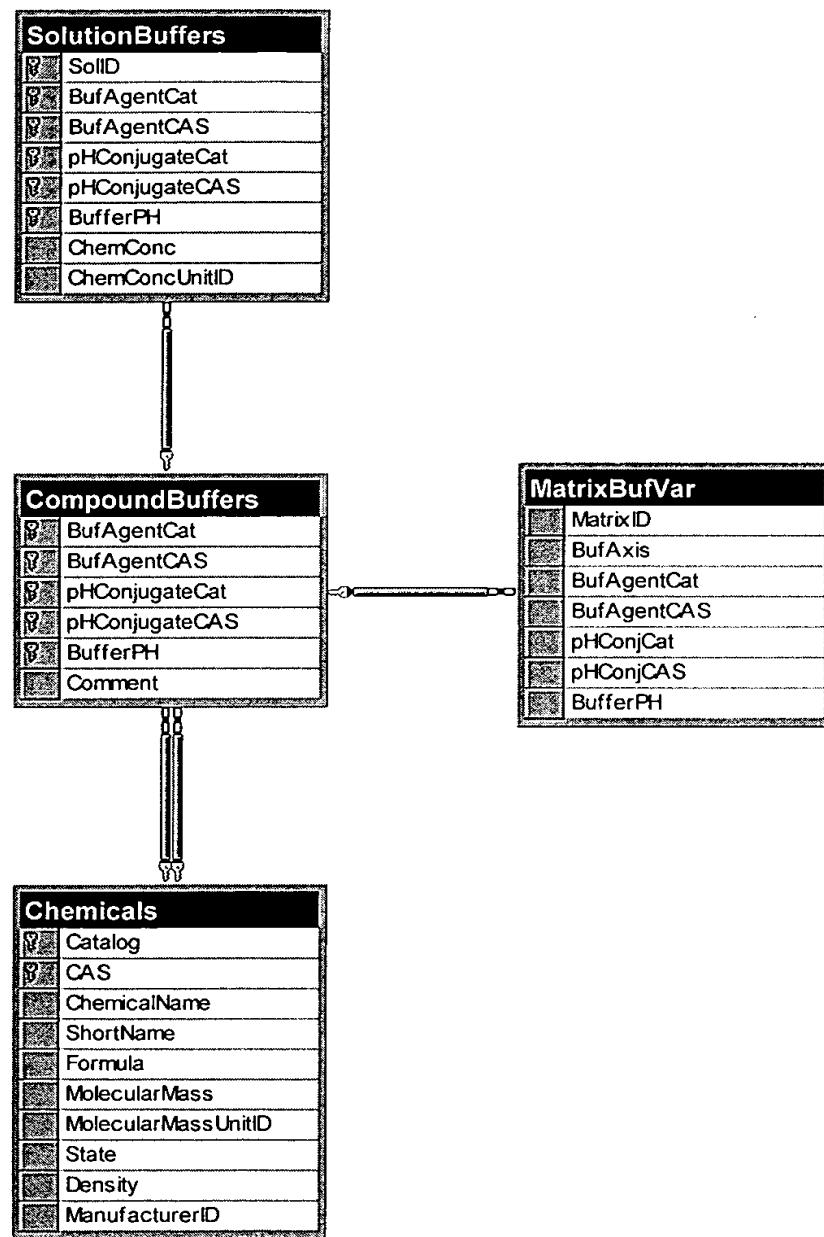


Fig. 226

000000000000000000000000

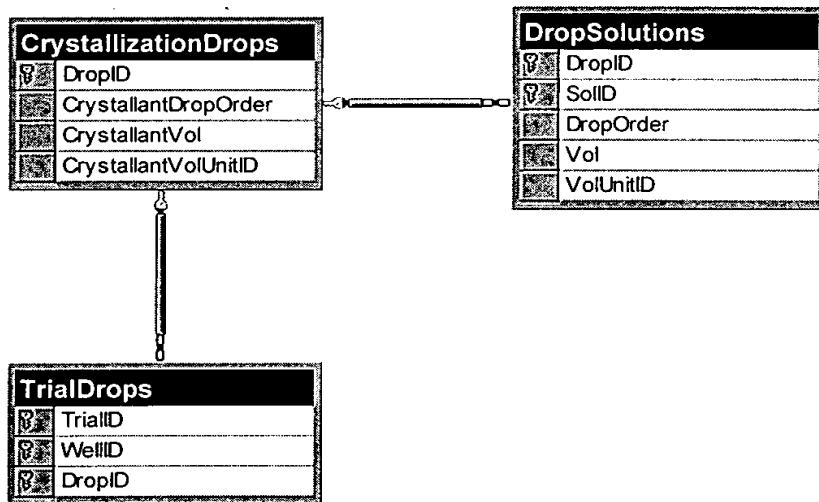


Fig. 227

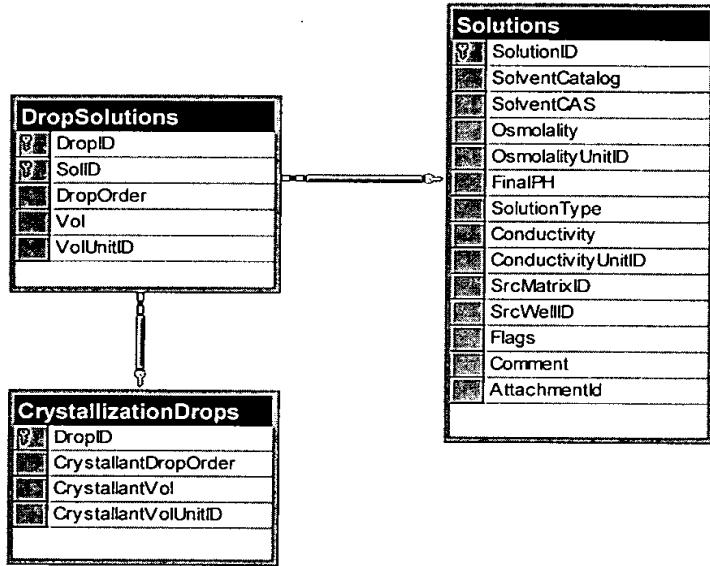


Fig. 228

1-1

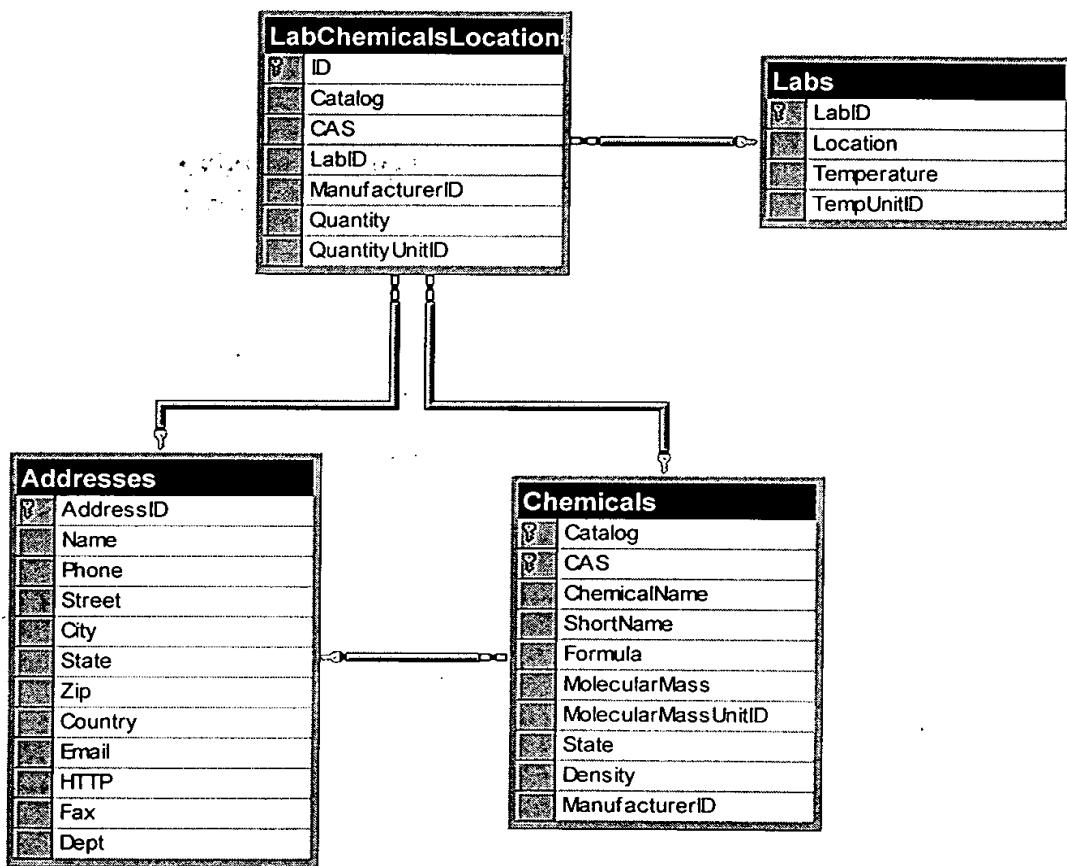


Fig. 229

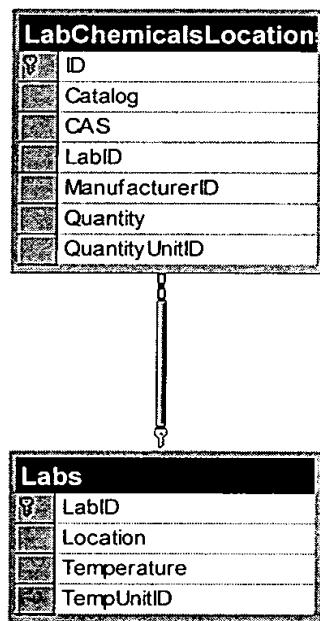


Fig. 230

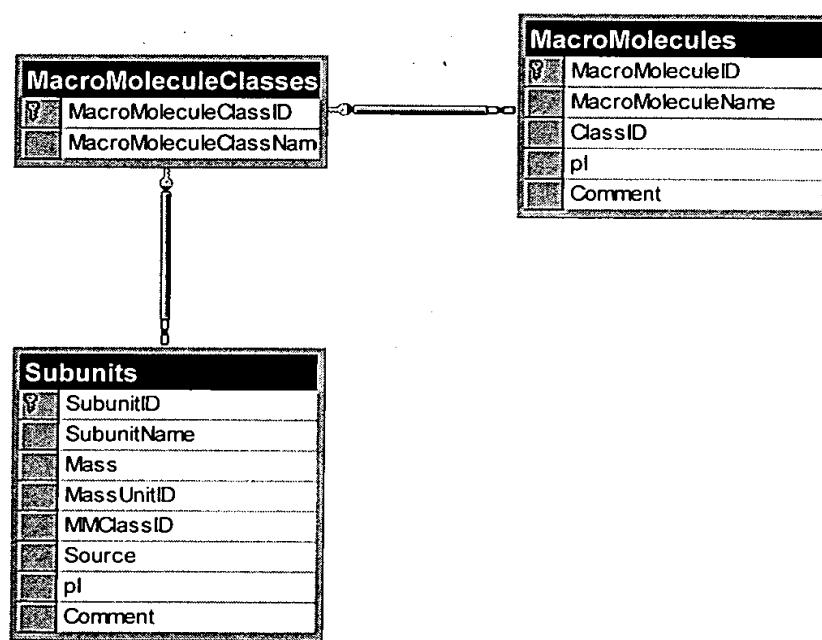


Fig. 231

0002030405060708090

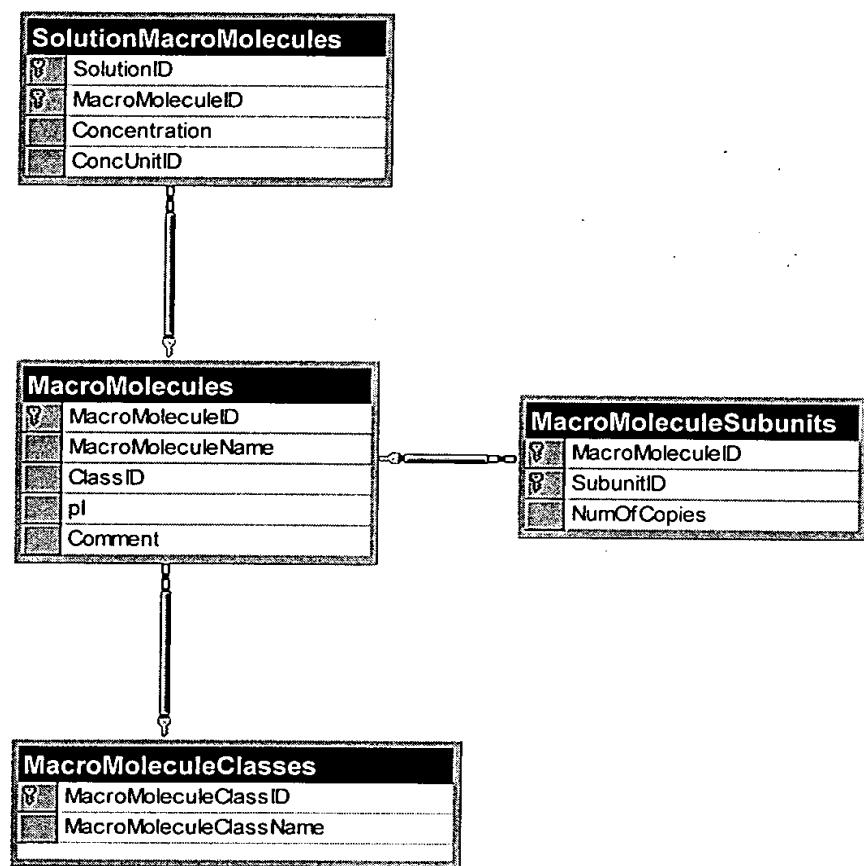


Fig. 232

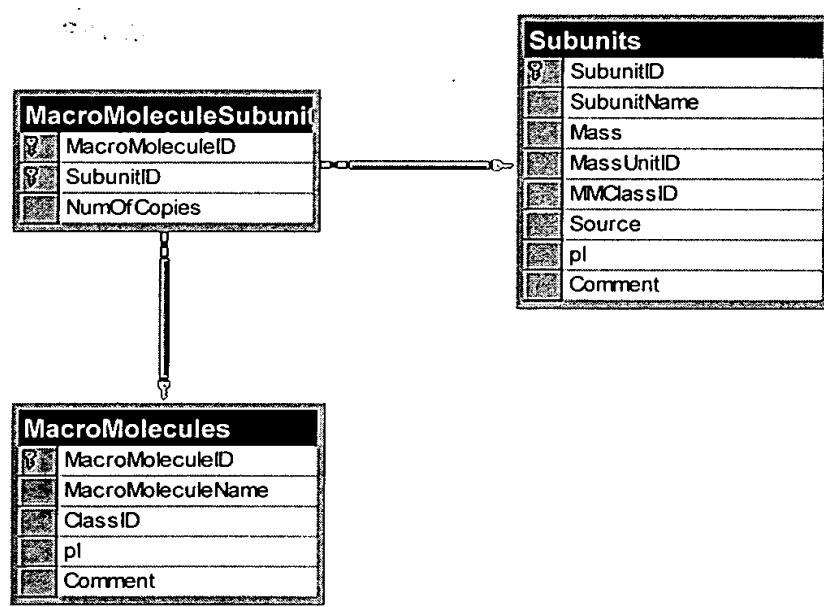


Fig. 233

002080 = 002080

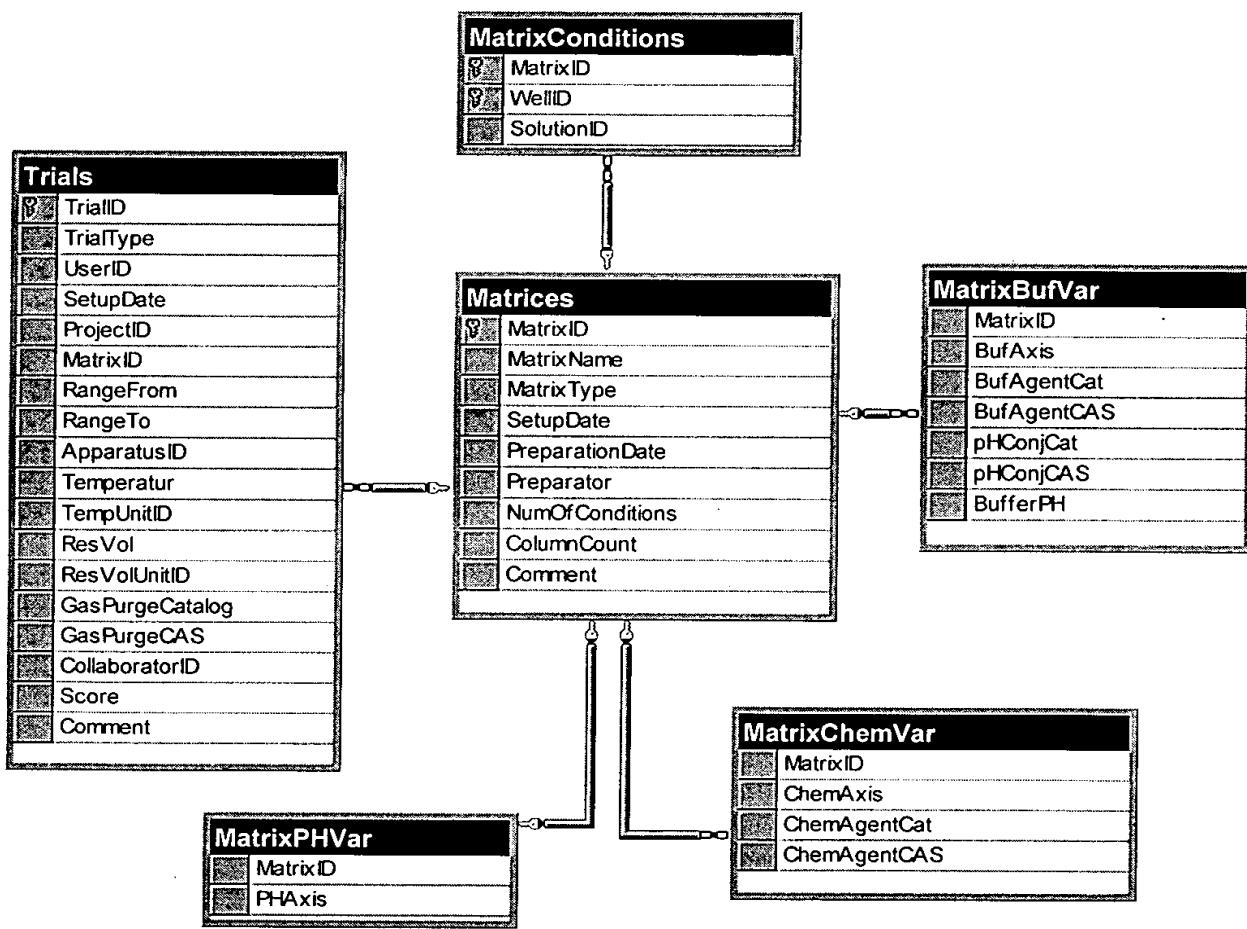


Fig. 234

00000000-0000-0000-0000-000000000000

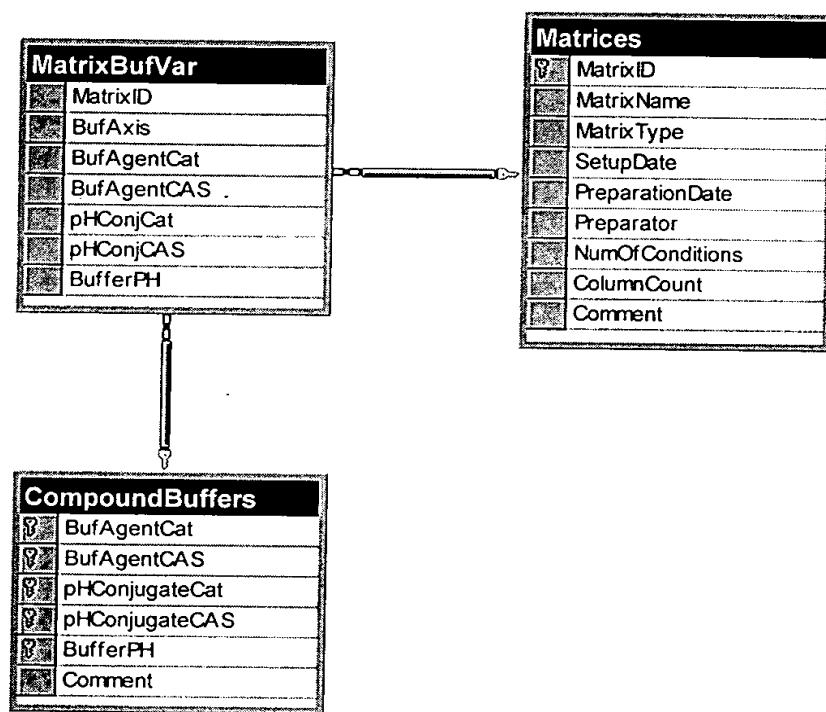


Fig. 235

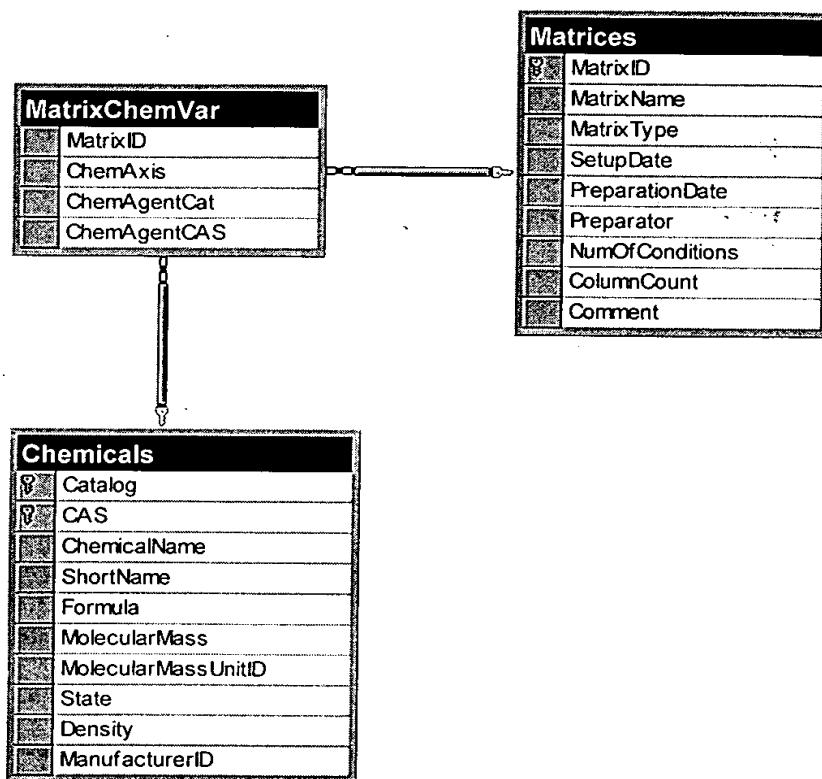


Fig. 236

09631185 - 030200

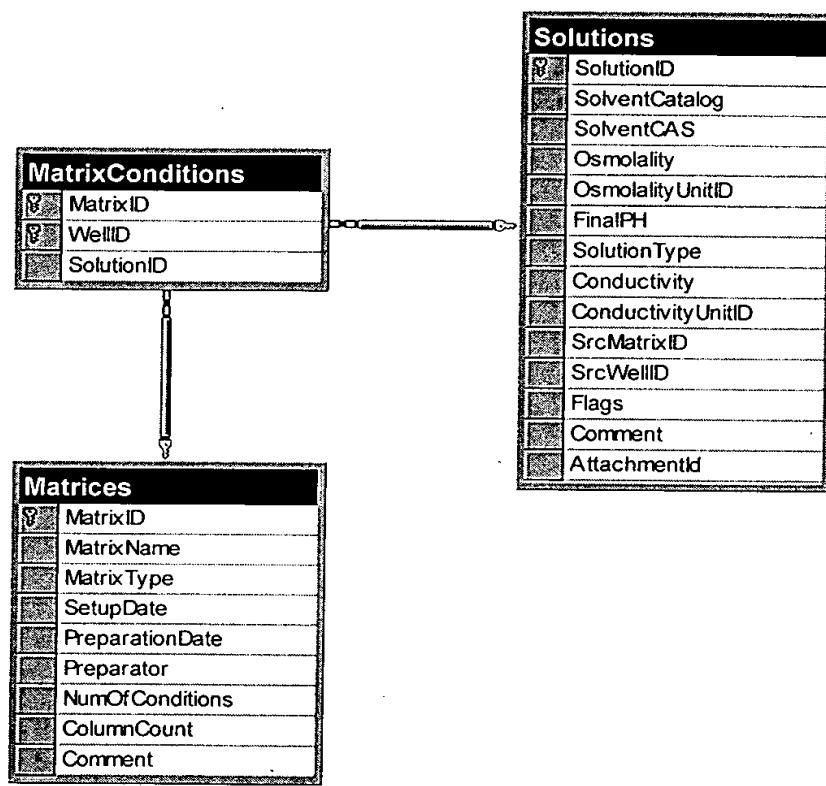


Fig. 237

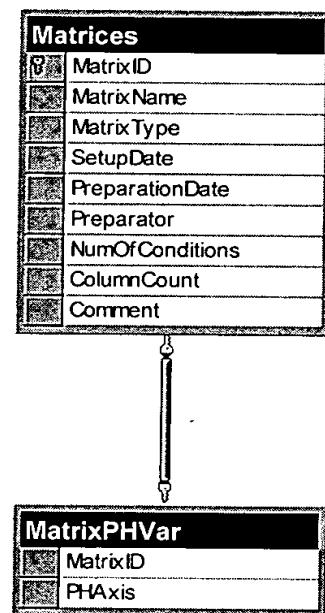


Fig. 238

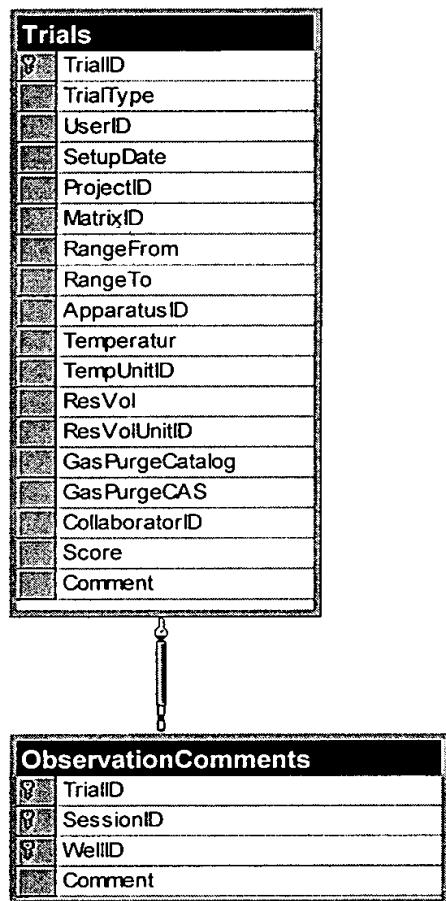


Fig. 239

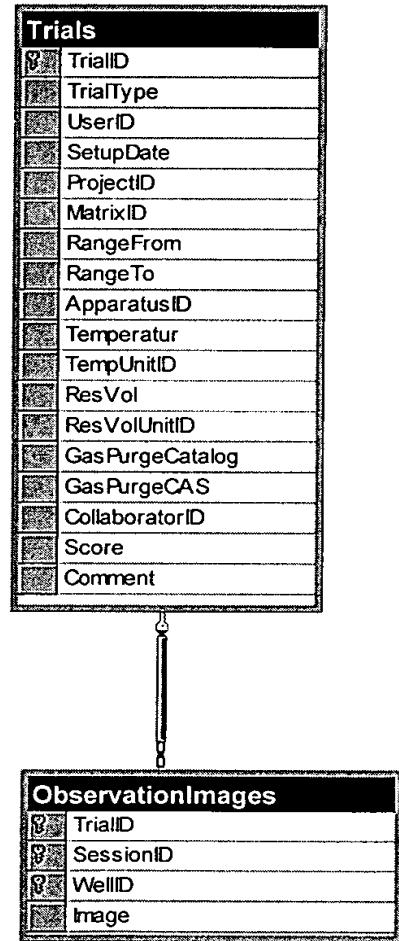


Fig. 240
1-1

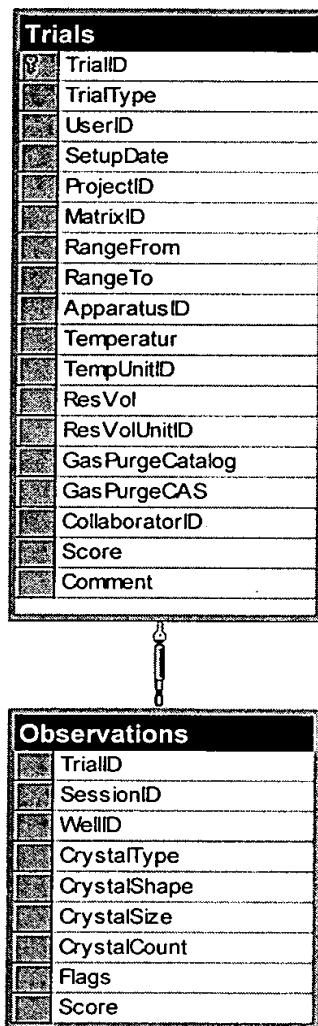


Fig. 241

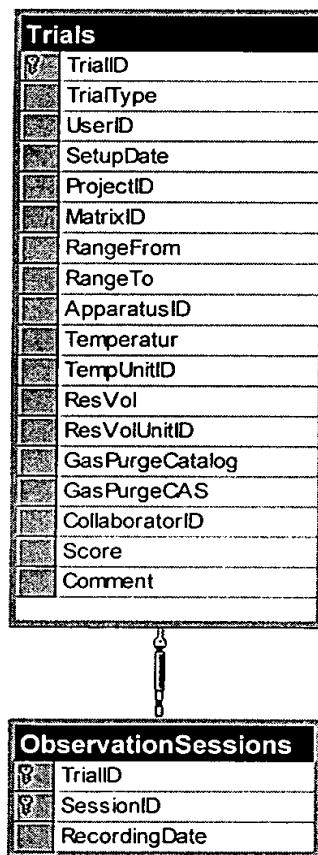


Fig. 242

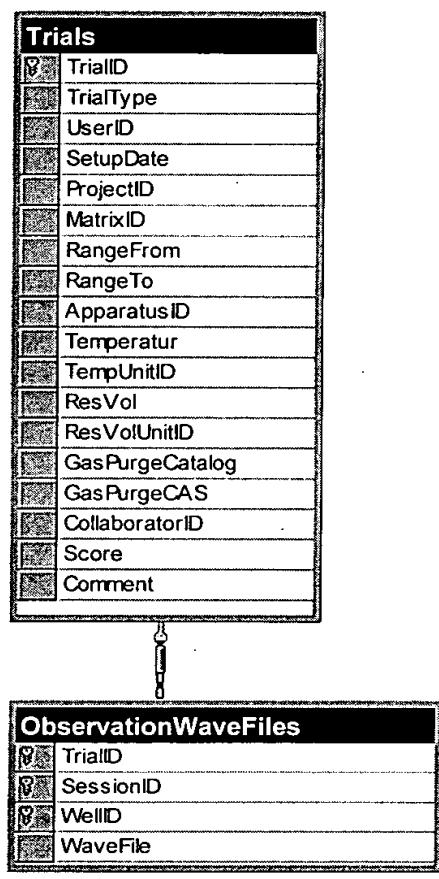


Fig. 243

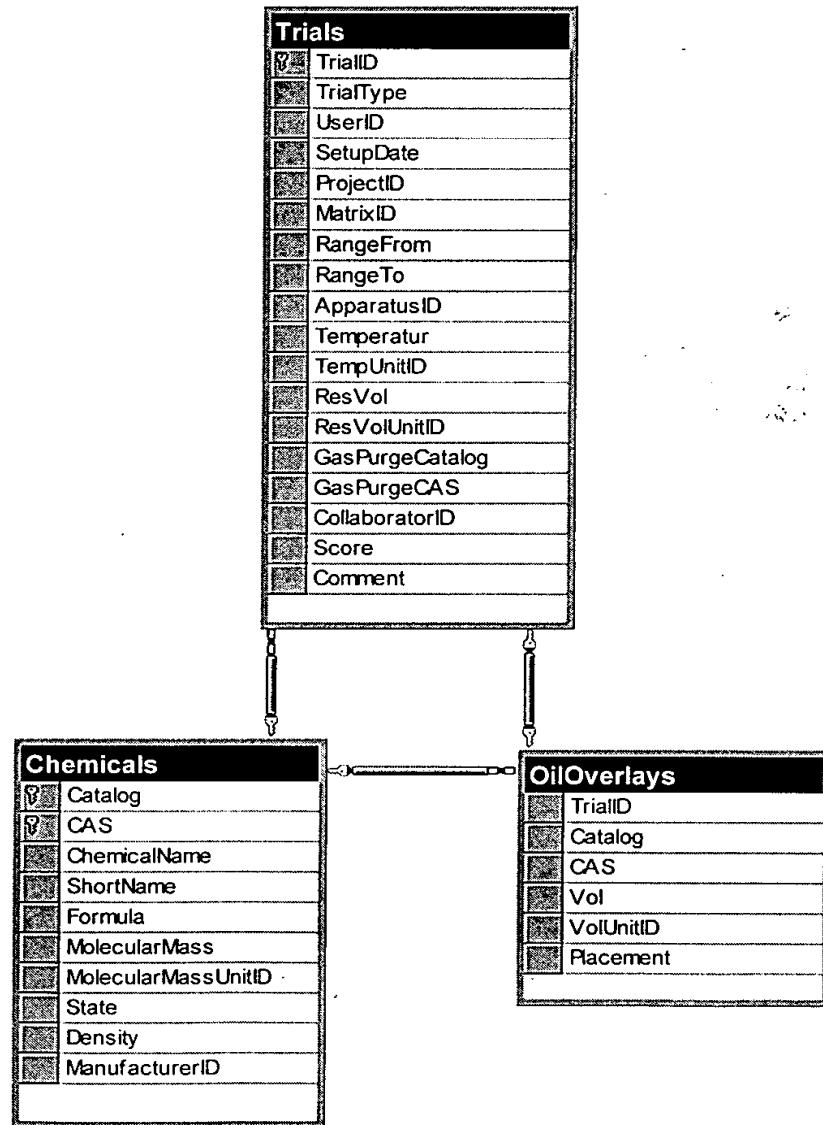


Fig. 244
1-1

Preparators	
<input checked="" type="checkbox"/>	PreparatorID
<input type="checkbox"/>	PreparatorName

Fig. 245

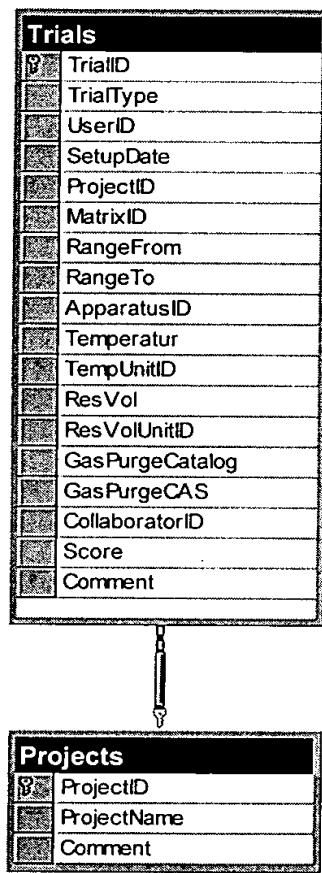


Fig. 246

09534185 080200

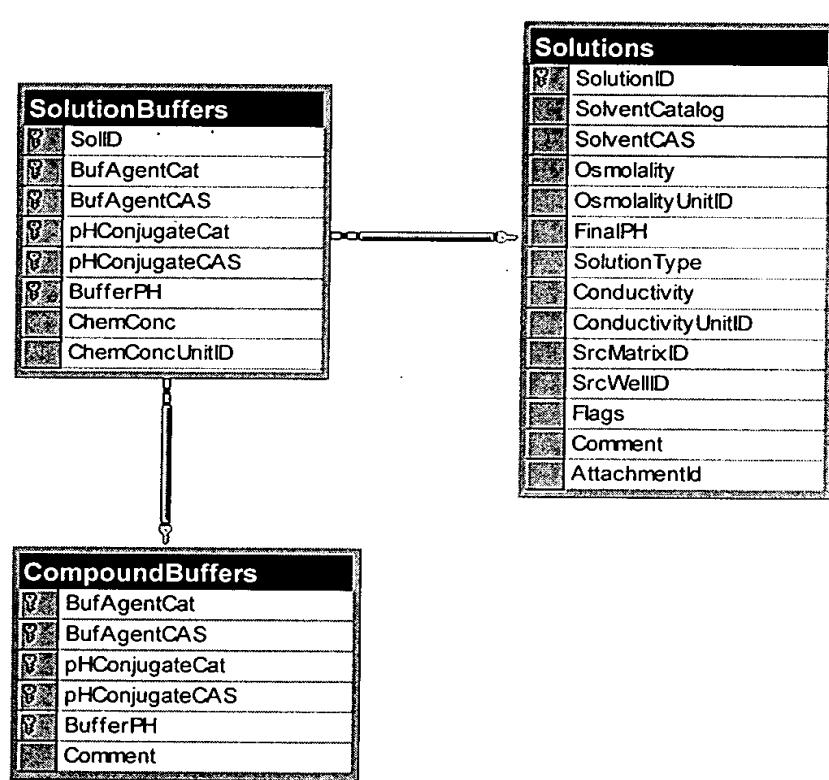


Fig. 247

09621485 080200

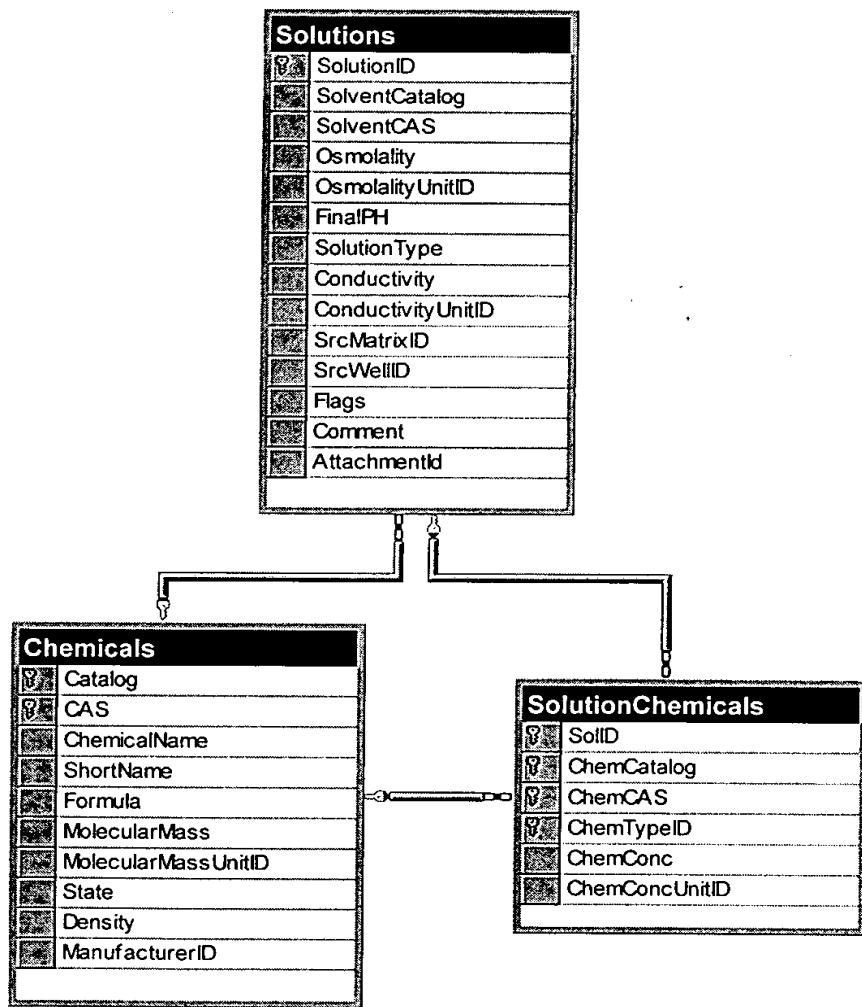


Fig. 248
1-1

09623185 - 030200

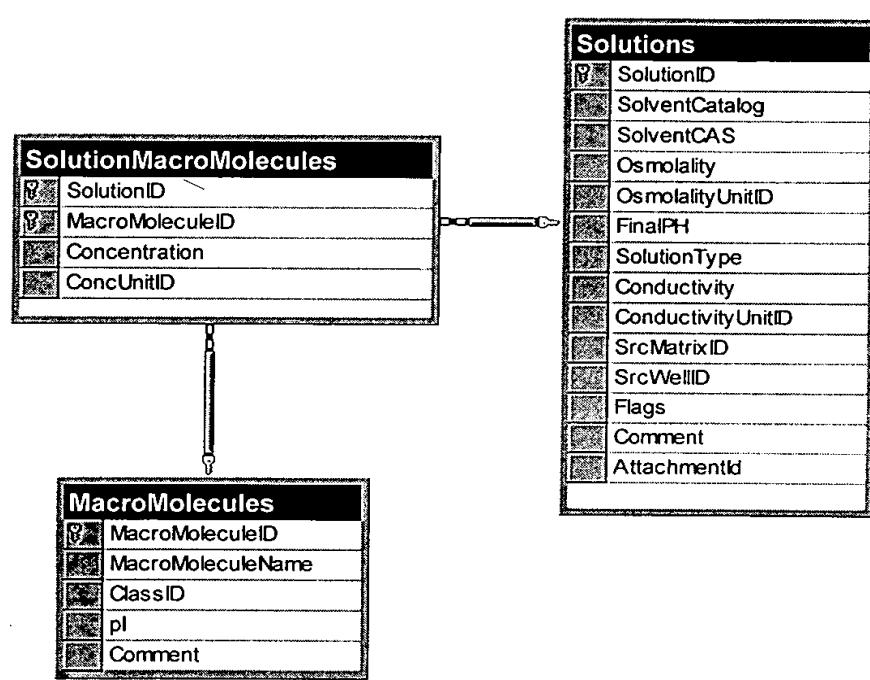


Fig. 249

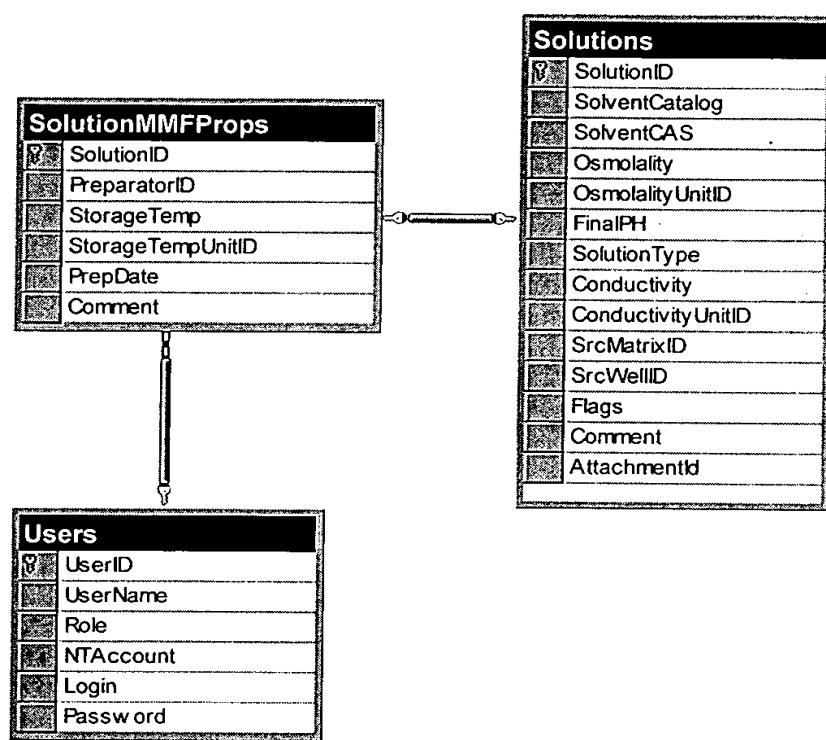


Fig. 250

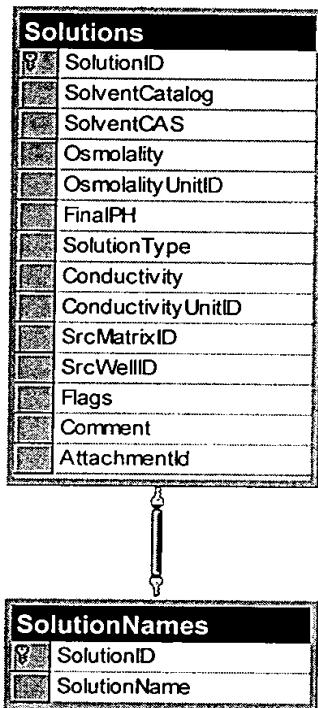
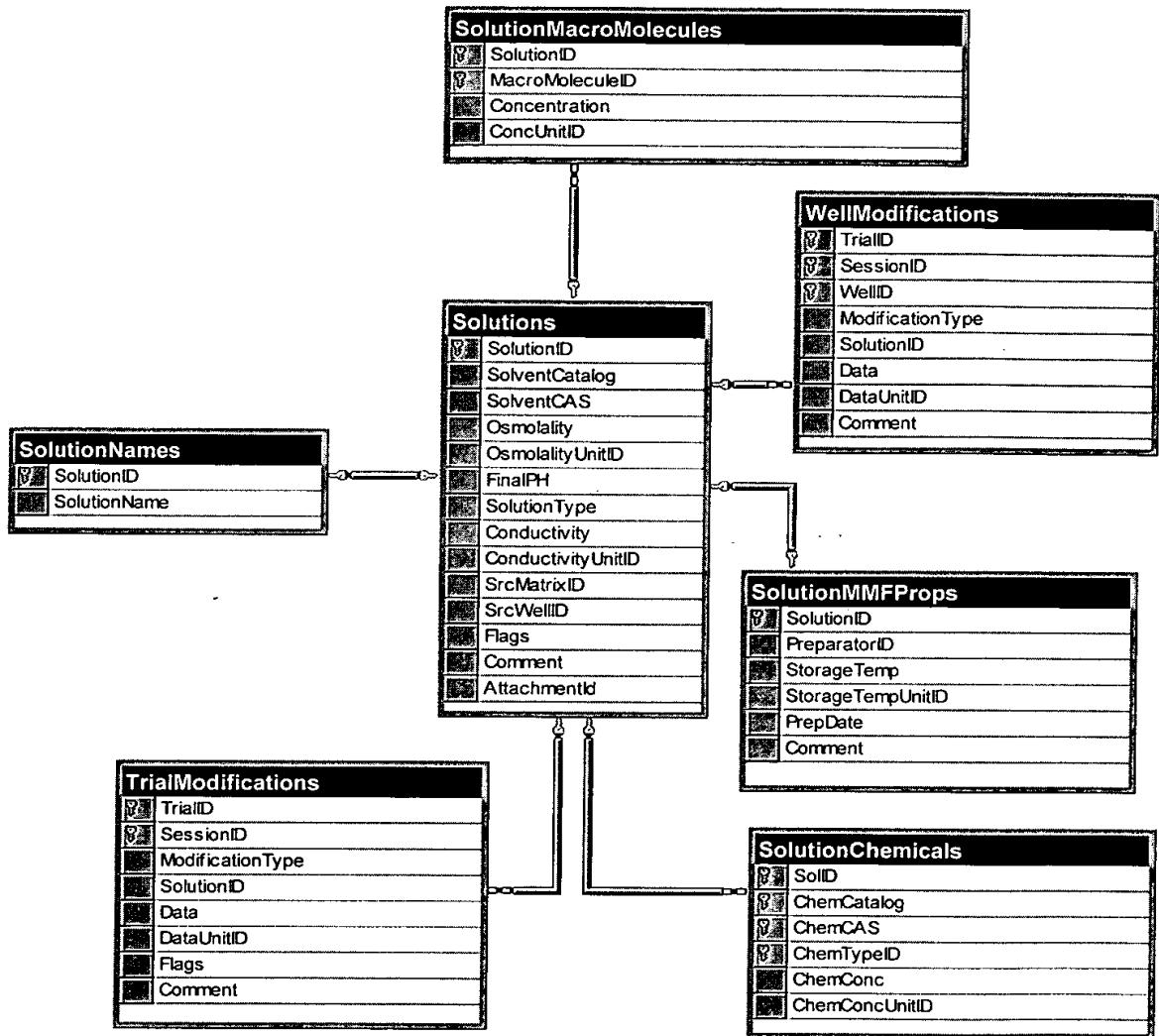


Fig. 251



1-1

Fig. 252

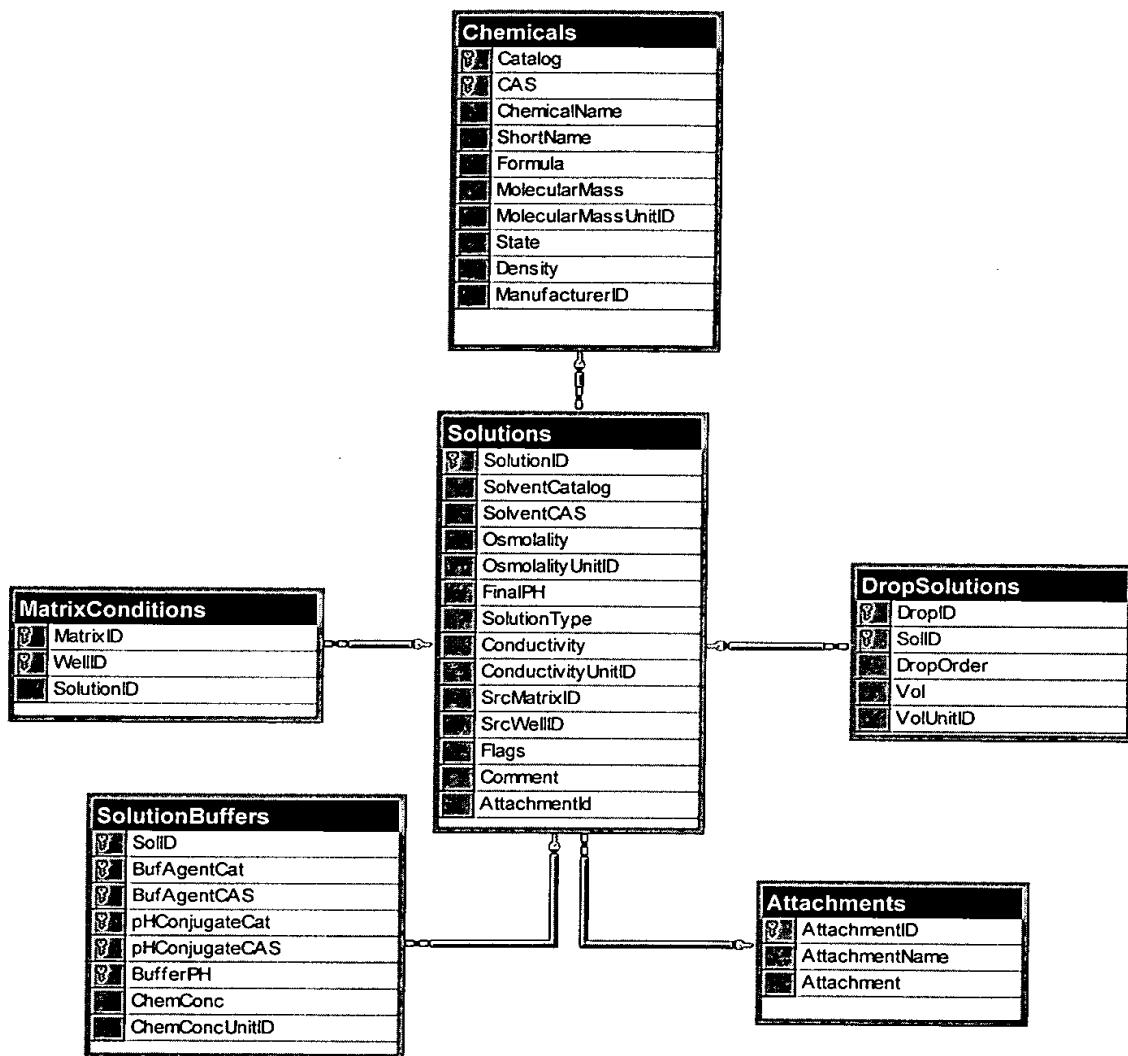


Fig. 253

0963165 - 030200

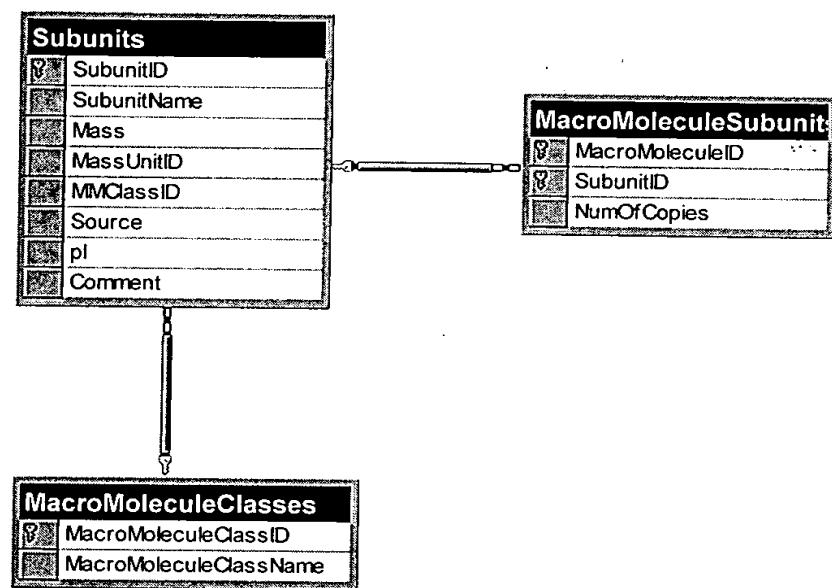


Fig. 254

SystemInfo	
<input checked="" type="checkbox"/>	Atrib
<input type="checkbox"/>	Value

Fig. 255

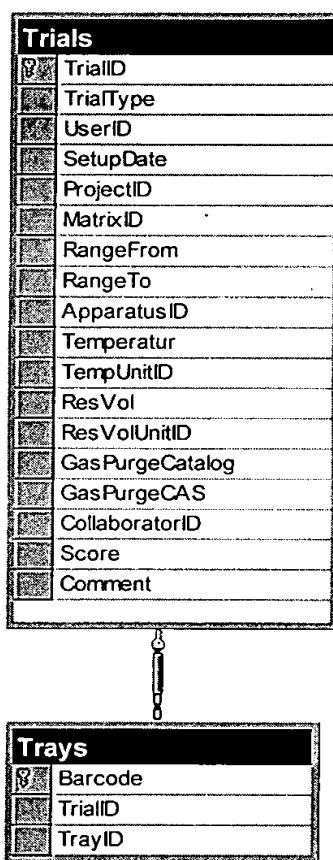


Fig. 256

09634195 - 030200

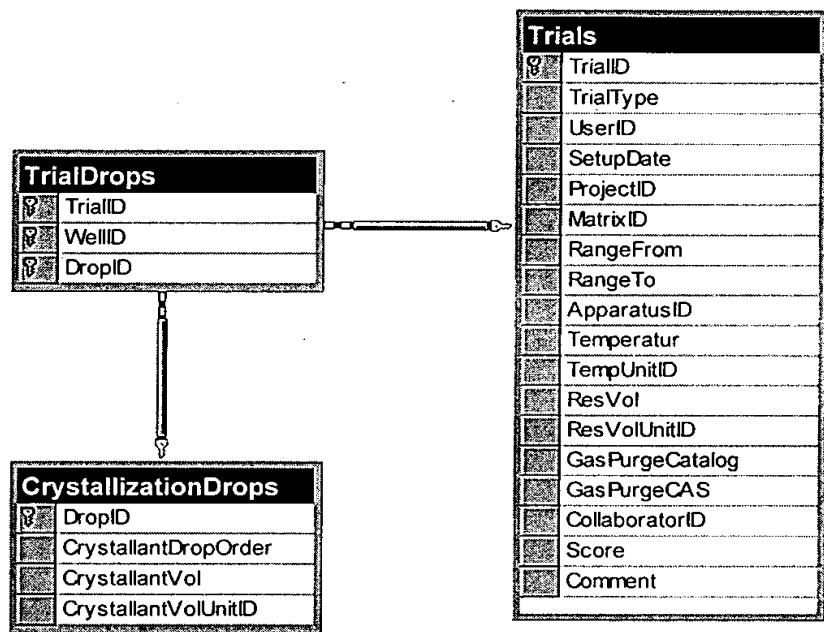


Fig. 257
1-1

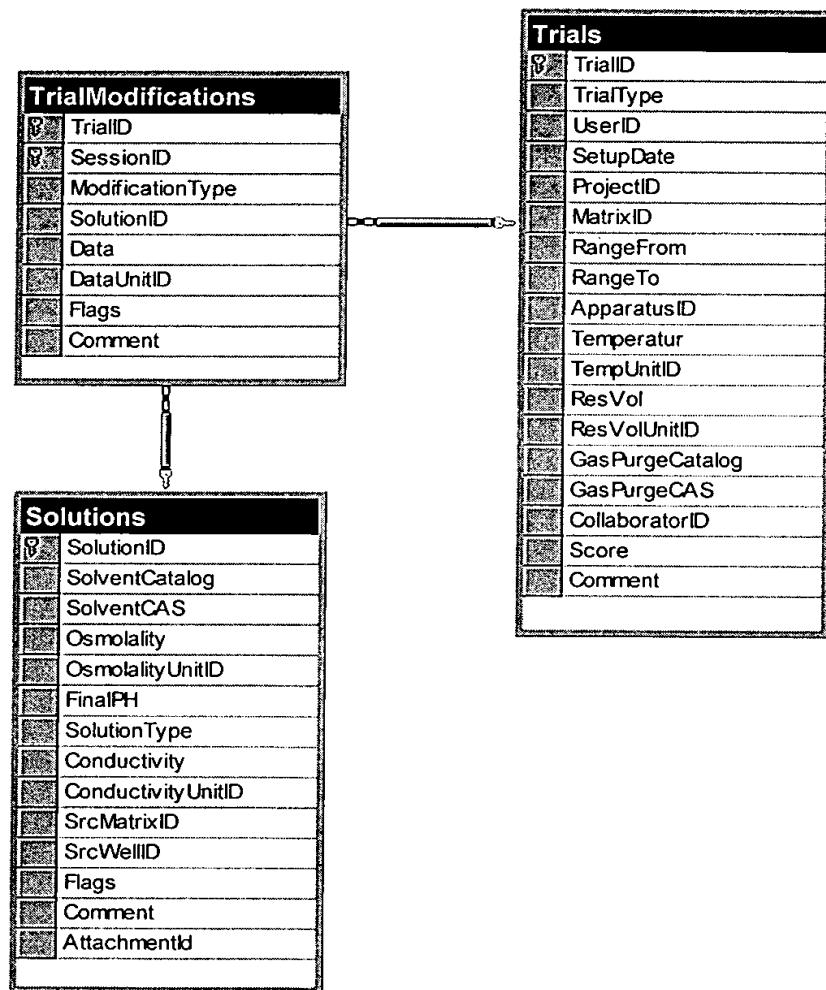


Fig. 258

09631105 - 0020200

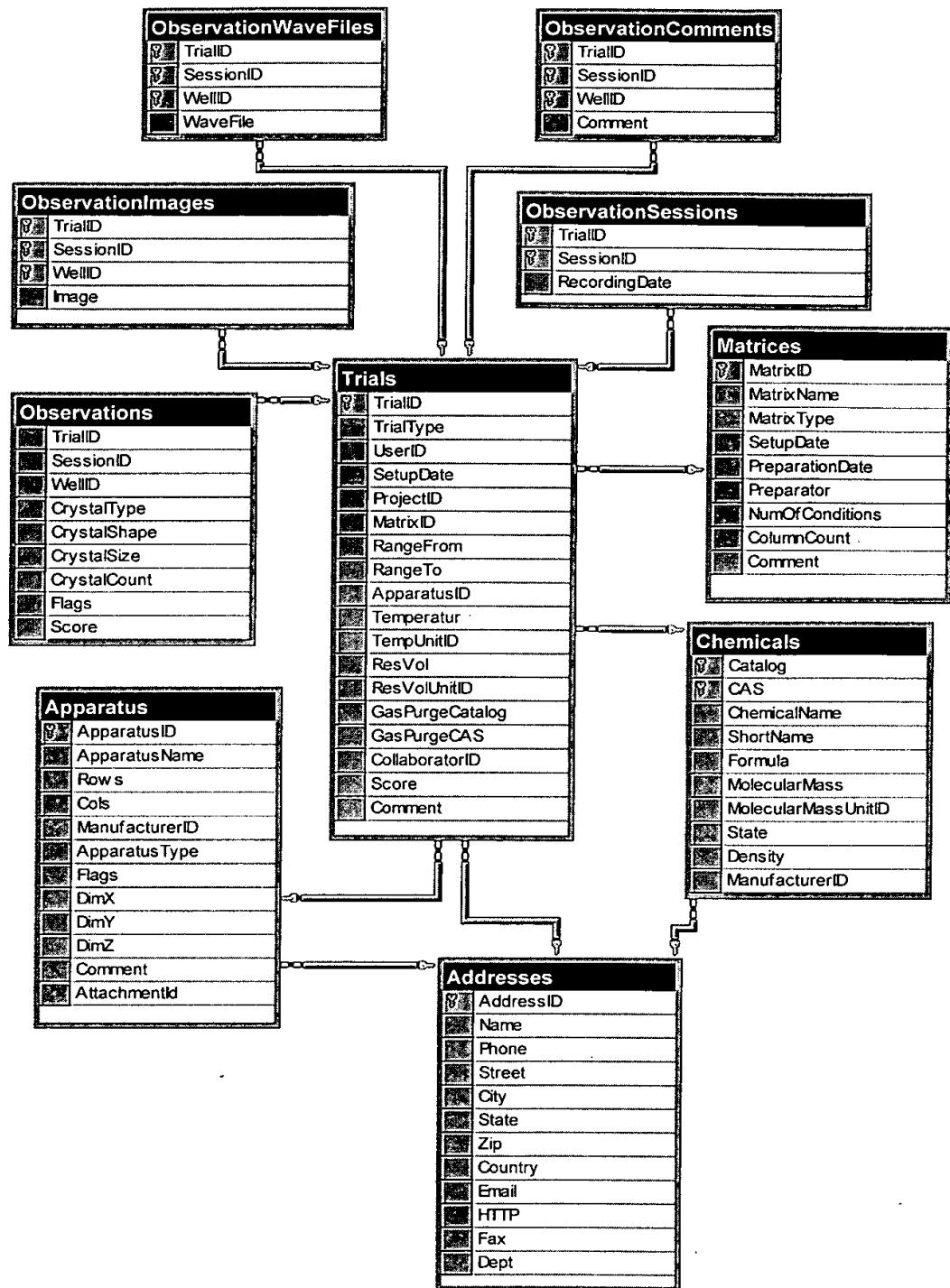
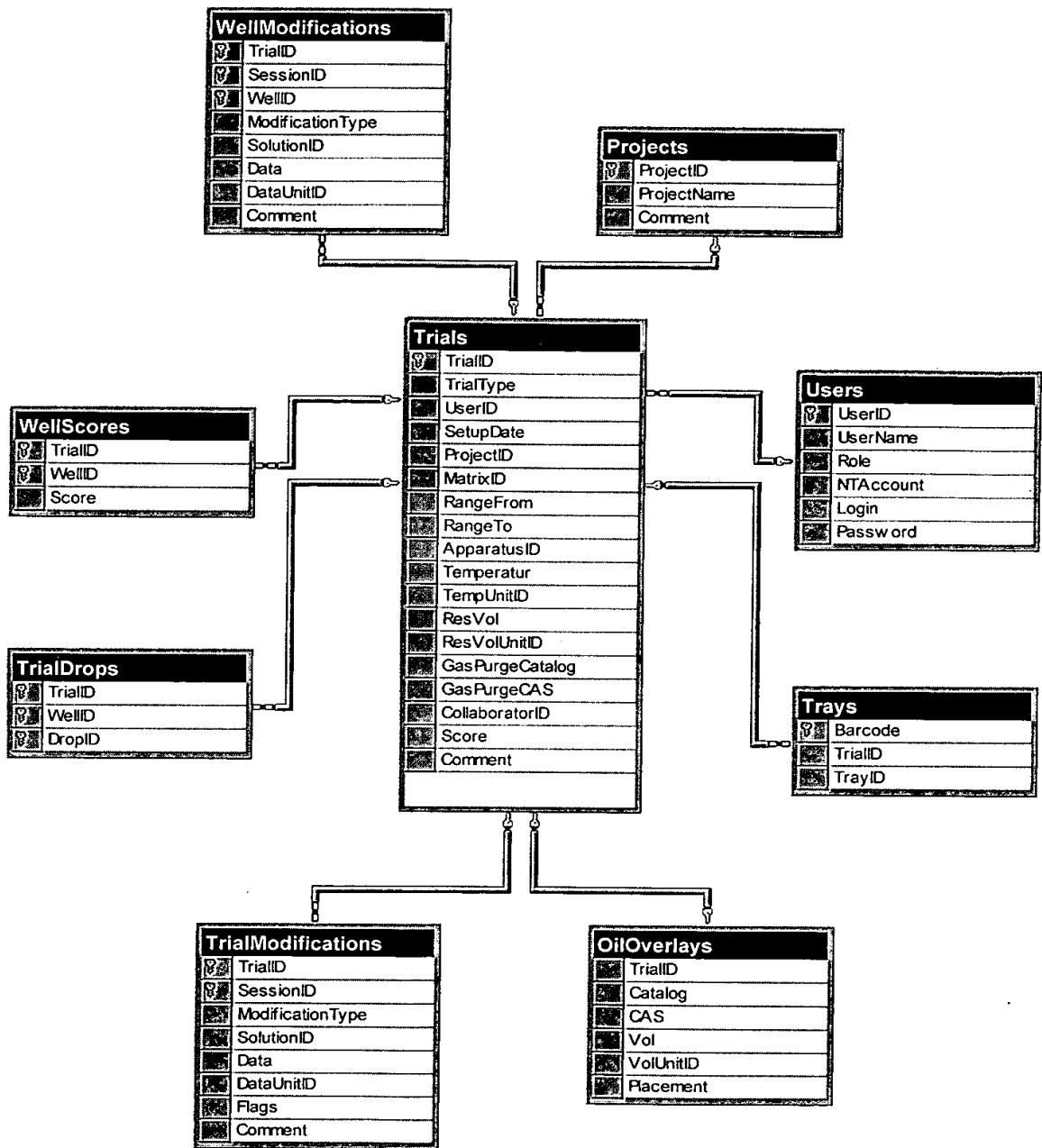


Fig. 259



09634185 - 080000

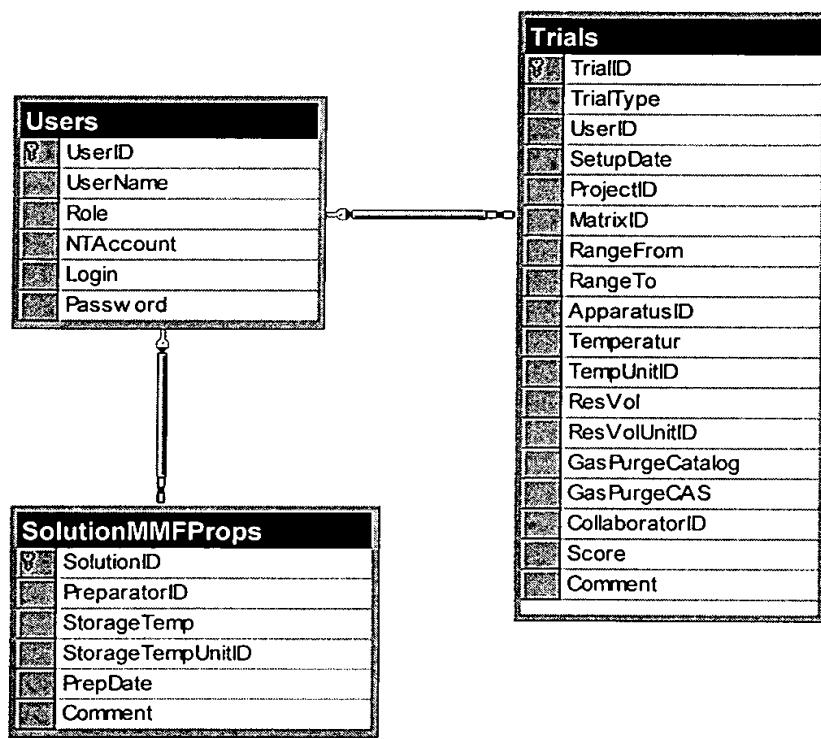


Fig. 261

000000000000000000000000

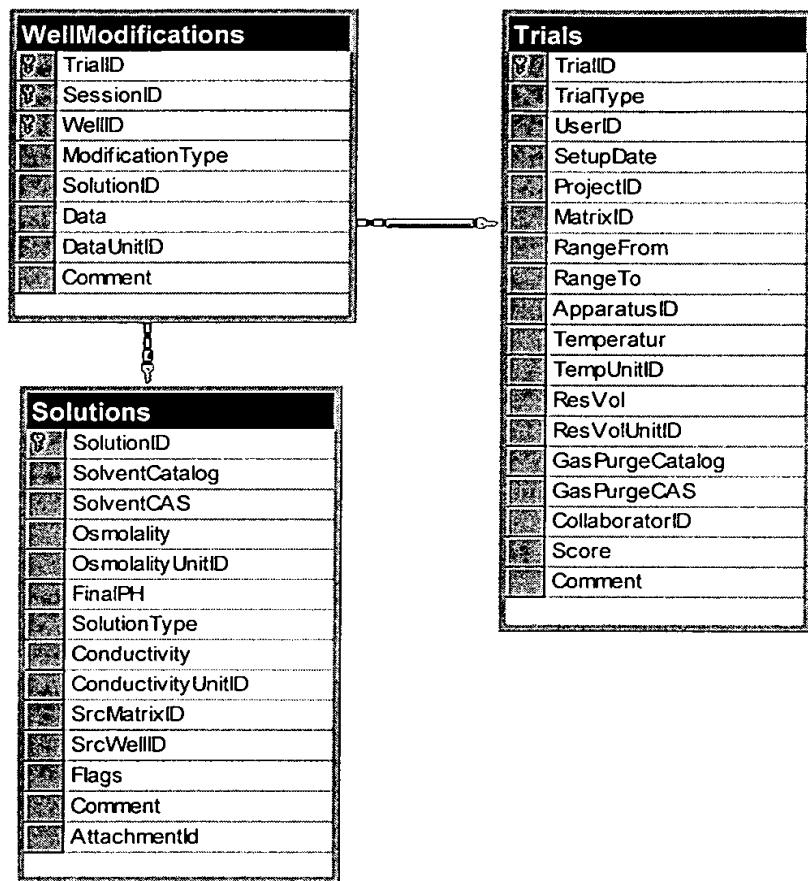


Fig. 262

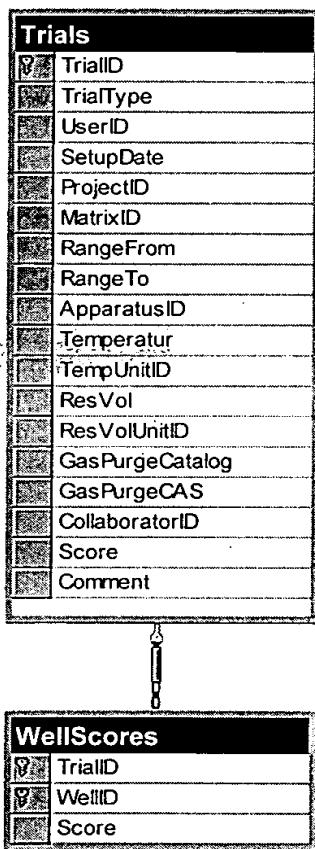


Fig. 263